

PRELIMINARY REPORT OF 060519

last update on Fri May 19 16:41:44 GMT 2006

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1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2006-05-18 00:00:00 to 2006-05-19 16:41:44

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	41	58	16	1	19
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	41	58	16	1	19
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	41	58	16	1	19
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	41	58	16	1	19

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20051013_151540_20050916_195733_20061231_000000	34	53	39	22	54
ASA_XCA_AXVIEC20051219_162245_20050916_195733_20061231_000000	34	53	39	22	54
ASA_INS_AXVIEC20051219_161945_20030211_000000_20061231_000000	34	53	39	22	54
ASA_XCH_AXVIEC20051219_162547_20020301_000000_20081231_000000	34	53	39	22	54

2.3 - Browse Visual Inspection

No anomalies observed on available browse products

2.4 - Data Analysis

- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20060518 100806
H	20060517 071831

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.969634	0.011519	0.016624
7	P1	-3.073414	0.013687	-0.082607
11	P1	-4.099329	0.015213	-0.035979
15	P1	-6.117522	0.011832	-0.078393
19	P1	-3.312530	0.007982	-0.018510
22	P1	-4.524333	0.010844	-0.004861
26	P1	-4.016501	0.020299	0.090787
30	P1	-5.741523	0.019483	-0.031495
3	P1	-16.642073	0.303607	0.141569
7	P1	-17.035580	0.150041	-0.309569
11	P1	-16.822428	0.315759	-0.364002
15	P1	-13.151472	0.142744	-0.206379
19	P1	-14.197245	0.048691	-0.218389
22	P1	-16.107611	0.439705	-0.167249
26	P1	-15.363094	0.268136	0.329777
30	P1	-16.874523	0.330522	-0.379925

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.262405	0.084490	0.127472
7	P2	-22.157497	0.100251	0.163520
11	P2	-15.999552	0.111746	0.140387
15	P2	-7.167925	0.094384	-0.008045
19	P2	-9.157662	0.087429	-0.025844
22	P2	-18.082279	0.085686	-0.110365
26	P2	-16.335012	0.090842	-0.105562
30	P2	-19.601122	0.085757	0.023439

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.191312	0.003972	-0.001305
7	P3	-8.191312	0.003972	-0.001305
11	P3	-8.191312	0.003972	-0.001305
15	P3	-8.191312	0.003972	-0.001305
19	P3	-8.191312	0.003972	-0.001305
22	P3	-8.191312	0.003972	-0.001305
26	P3	-8.191332	0.003973	-0.001253
30	P3	-8.191332	0.003973	-0.001253

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1

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P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.748187	0.038665	-0.009736
7	P1	-2.639029	0.100898	0.113359
11	P1	-2.871573	0.030626	0.050389
15	P1	-3.504362	0.029157	0.055253
19	P1	-3.387049	0.014195	-0.020155
22	P1	-5.105083	0.022229	0.058330
26	P1	-5.825720	0.021688	-0.040306
30	P1	-5.183715	0.044093	-0.027243
3	P1	-11.600276	0.134557	-0.038547
7	P1	-9.975900	0.153391	0.010489
11	P1	-10.212925	0.082908	0.060396
15	P1	-10.652471	0.126971	0.181552
19	P1	-15.471334	0.086782	-0.094502
22	P1	-20.776525	1.292095	-0.392858

26	P1	-16.434649	0.391465	-0.189833
30	P1	-18.157021	0.485774	0.365560

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-16.933437	0.069951	0.101038
7	P2	-22.514612	0.176176	-0.015945
11	P2	-11.192235	0.049348	0.008648
15	P2	-4.883451	0.042184	-0.062797
19	P2	-6.868024	0.041209	-0.024050
22	P2	-8.171531	0.053088	-0.059685
26	P2	-24.068502	0.125045	-0.091082
30	P2	-22.054789	0.086481	-0.013189

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.024652	0.003643	0.003676
7	P3	-8.024673	0.003655	0.003105
11	P3	-8.024738	0.003639	0.003499
15	P3	-8.024503	0.003660	0.003916
19	P3	-8.024715	0.003655	0.004083
22	P3	-8.024698	0.003647	0.003540
26	P3	-8.024510	0.003640	0.003659
30	P3	-8.024571	0.003648	0.003853

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000538686
	stdev	1.88706e-07
MEAN Q	mean	0.000512680
	stdev	2.28126e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.135175
	stdev	0.00119271
STDEV Q	mean	0.135525
	stdev	0.00120993



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2006051[789]

The assumptions is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060517_202031_000000362047_00429_22026_5398.N1	1	0
ASA_WSM_1PNPDE20060517_001650_000000852047_00417_22014_9559.N1	0	26
ASA_WSM_1PNPDE20060517_015318_000000672047_00418_22015_9563.N1	0	69
ASA_WSM_1PNPDE20060517_234613_000003302047_00431_22028_9726.N1	0	26
ASA_WSM_1PNPDE20060518_112524_000000672047_00438_22035_9798.N1	0	30



ASA_WSM_1PNPDK20060518_140701_000000912047_00440_22037_5419.N1	0	57
ASA_WSM_1PNPDK20060518_140704_000000852047_00440_22037_5450.N1	0	57





7 - Doppler Analysis

Preliminary report. The data is not yet controlled

7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)	
	
	Ascending
	
	Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler	
	
	Ascending
	
	Descending

7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX	
	

7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)
<input type="checkbox"/>
Ascending
<input type="checkbox"/>
Descending

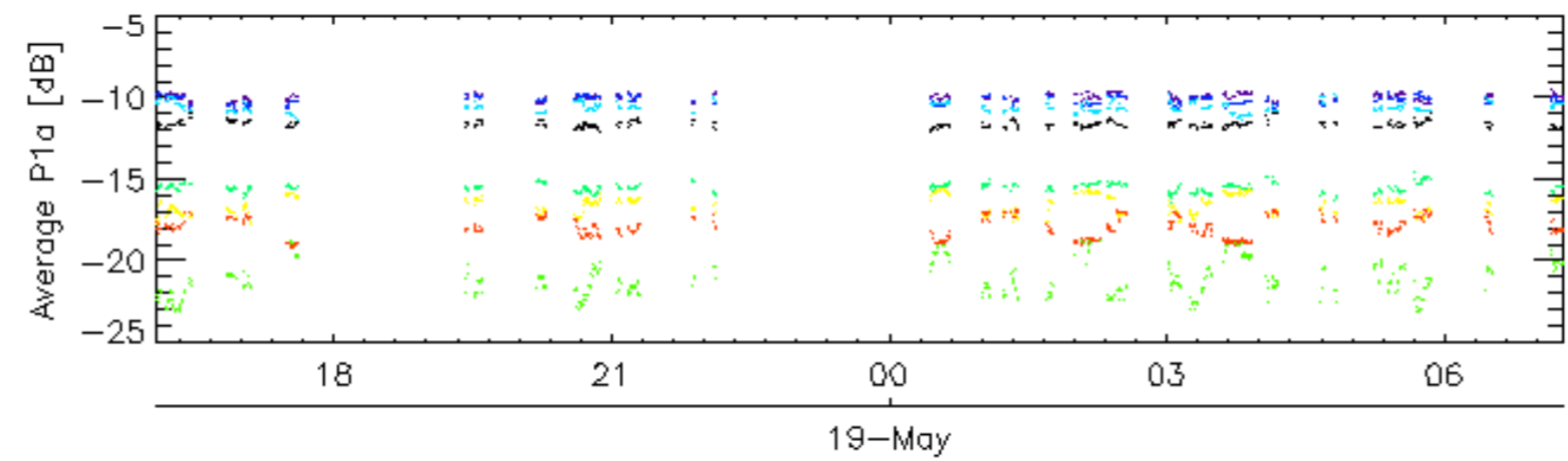
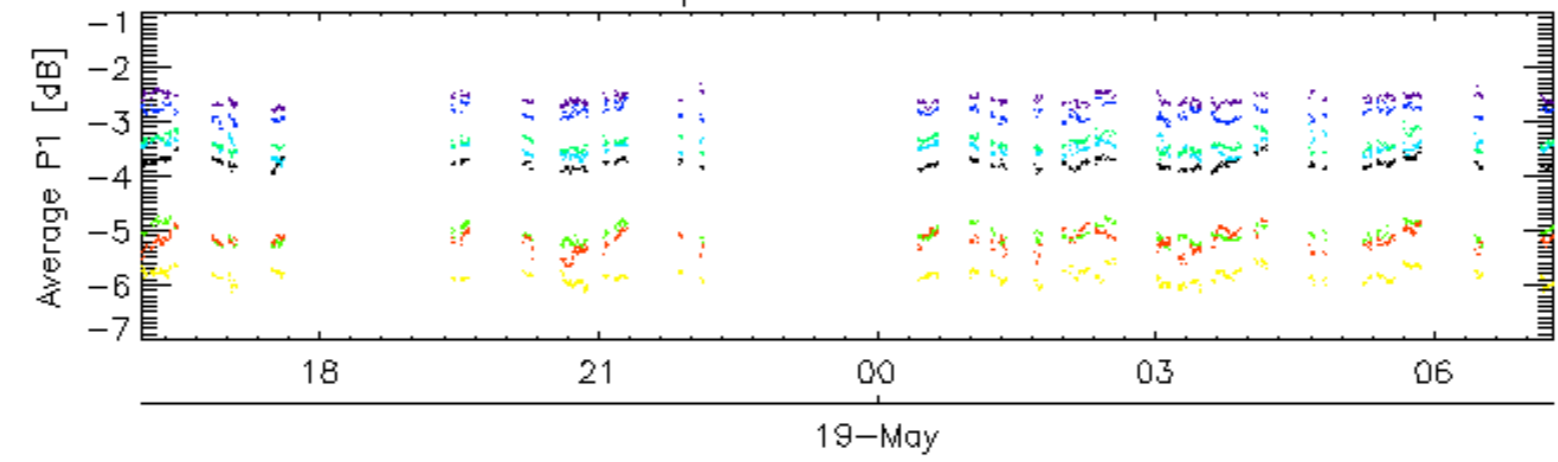
7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler
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Ascending
<input type="checkbox"/>
Descending

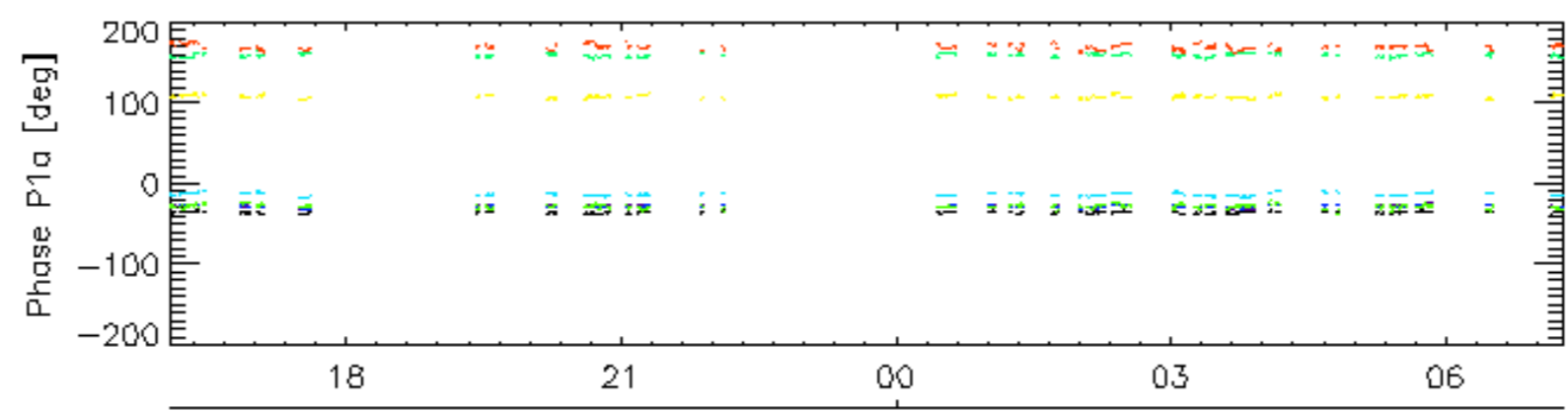
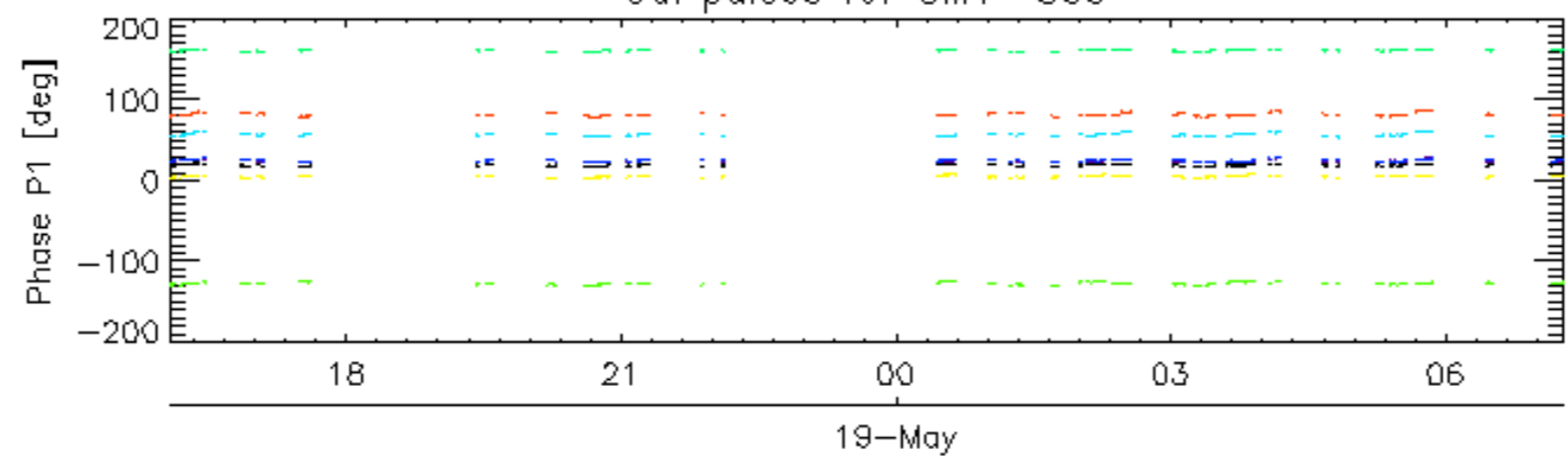
7.6 - Doppler evolution versus ANX for GM1

Evolution Doppler error versus ANX
<input type="checkbox"/>

Cal pulses for GM1 SS3

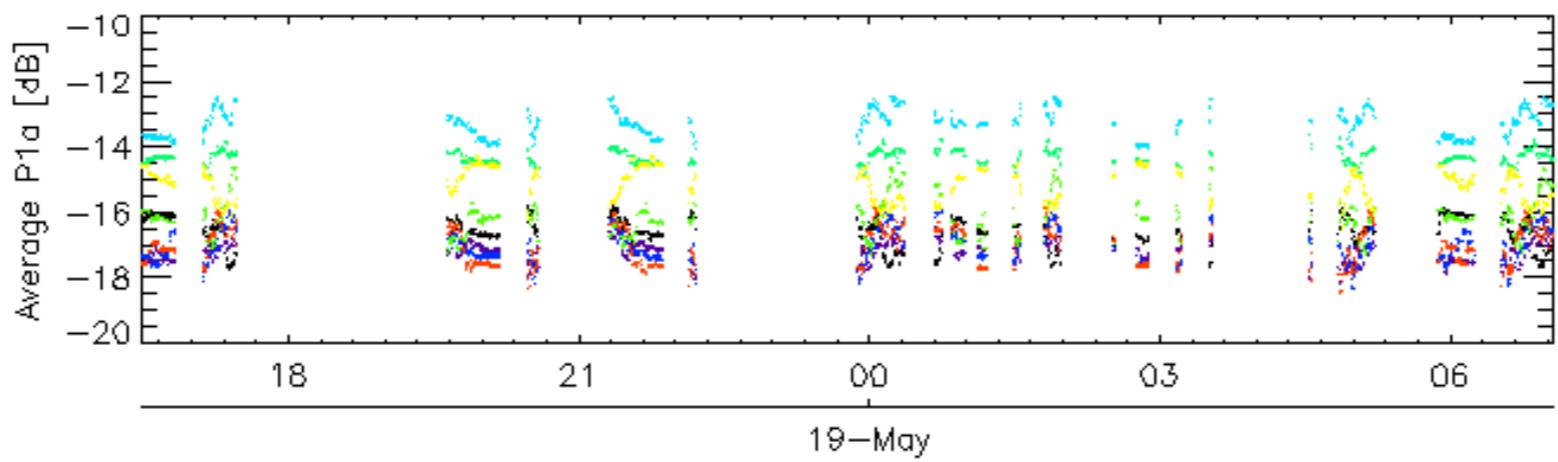
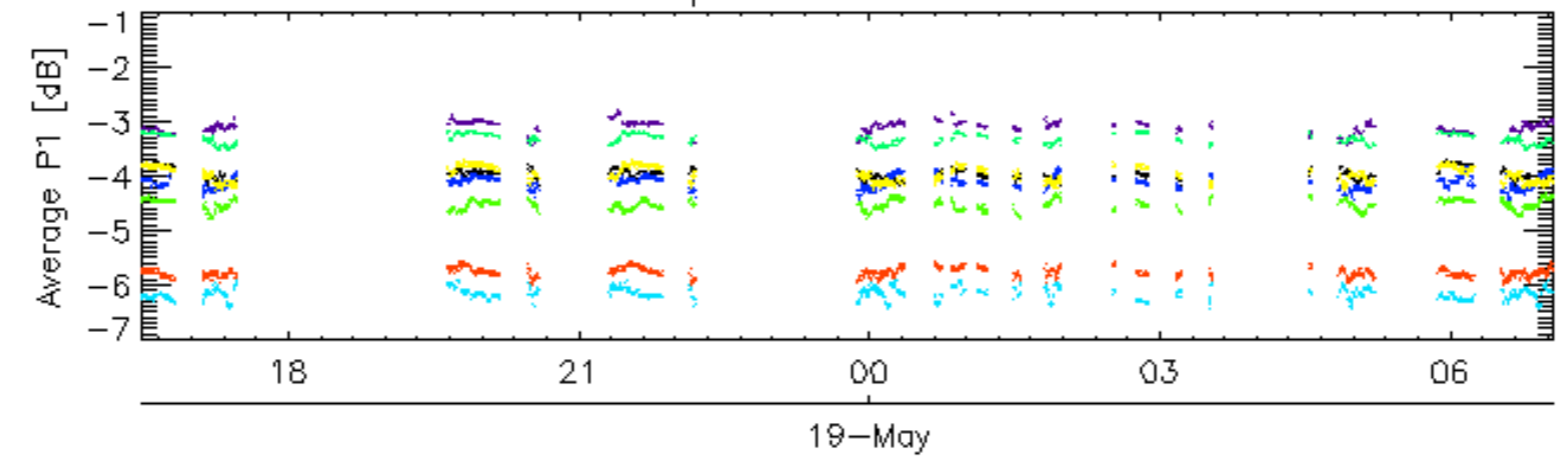


Cal pulses for GM1 SS3

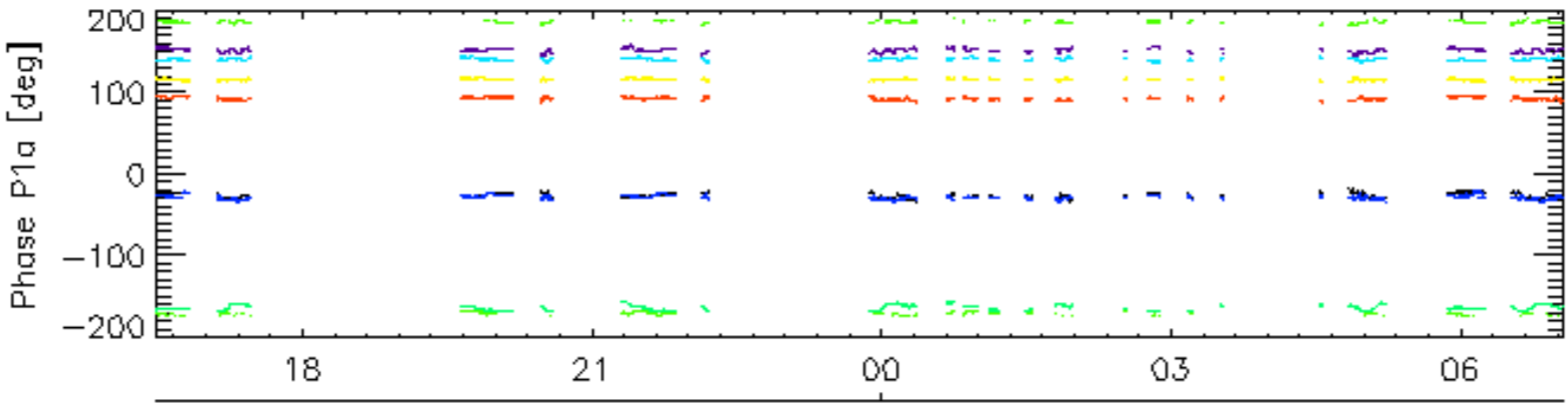
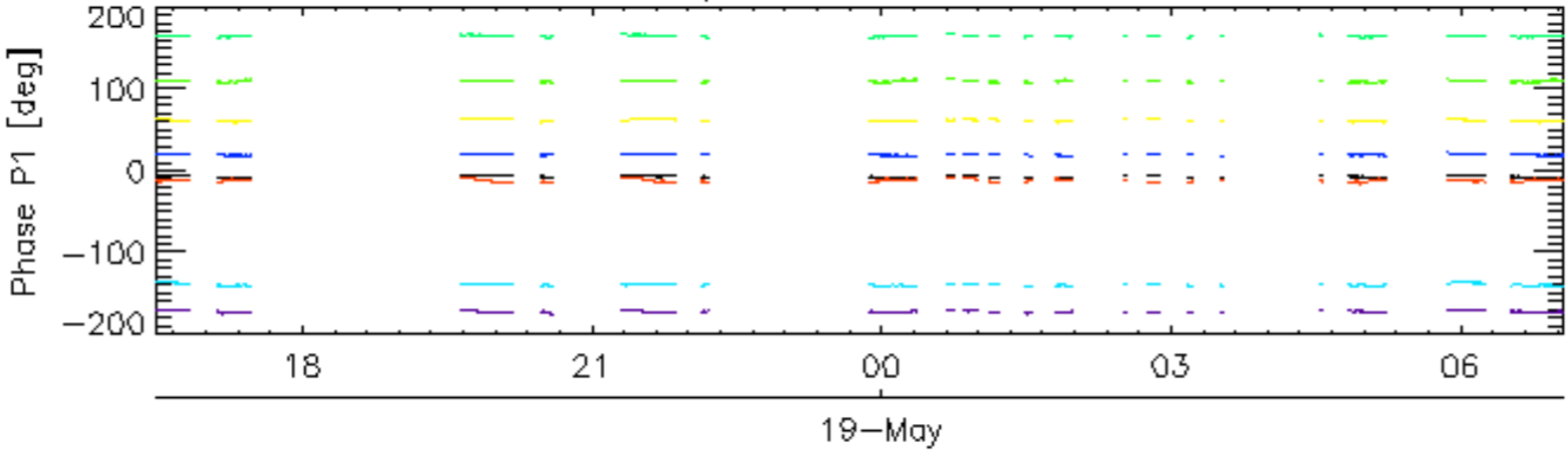


rows: **3** **7** **11** **15** **19** **22** **26** **30** 19-May

Cal pulses for WVS IS2

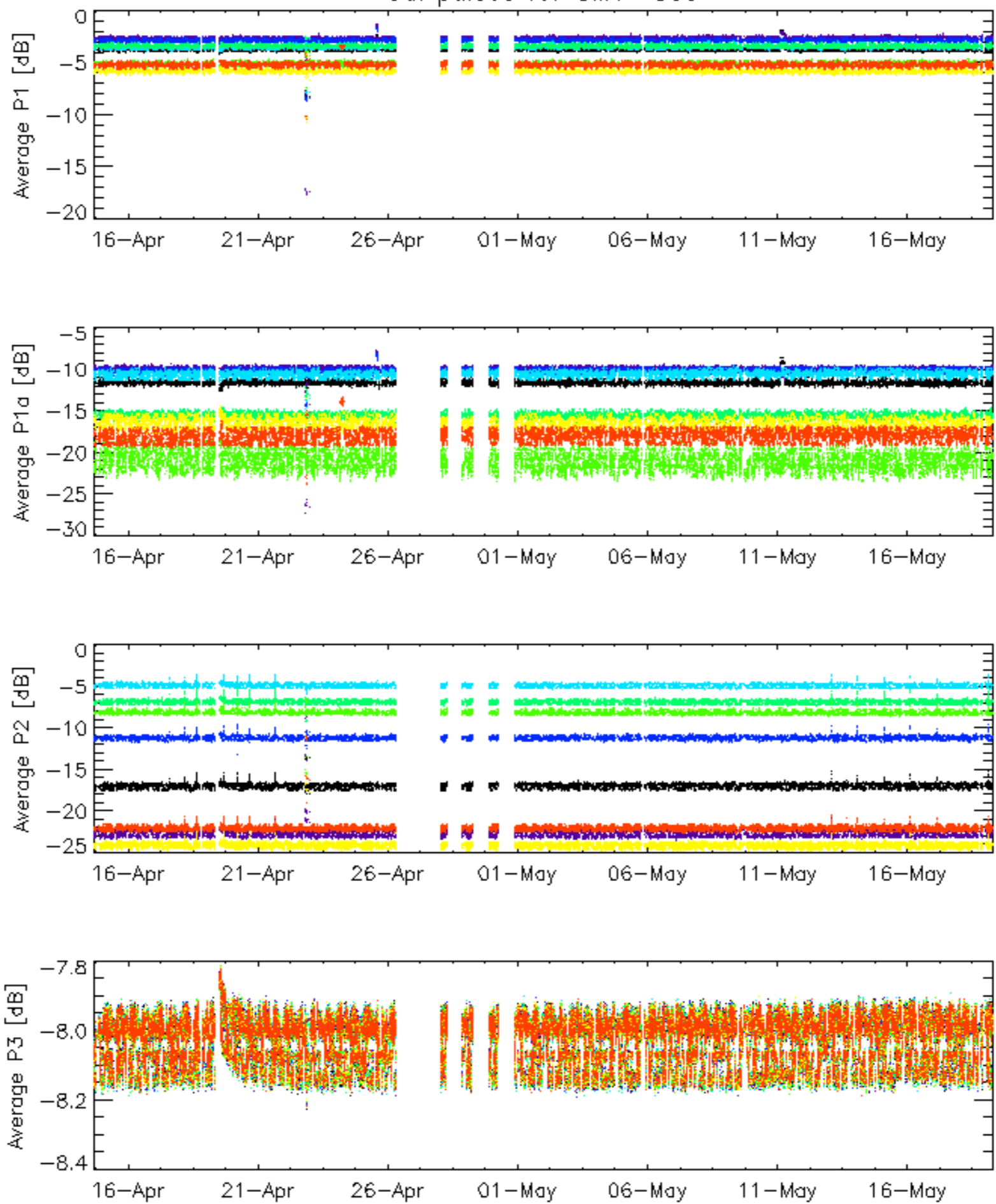


Cal pulses for WVS IS2



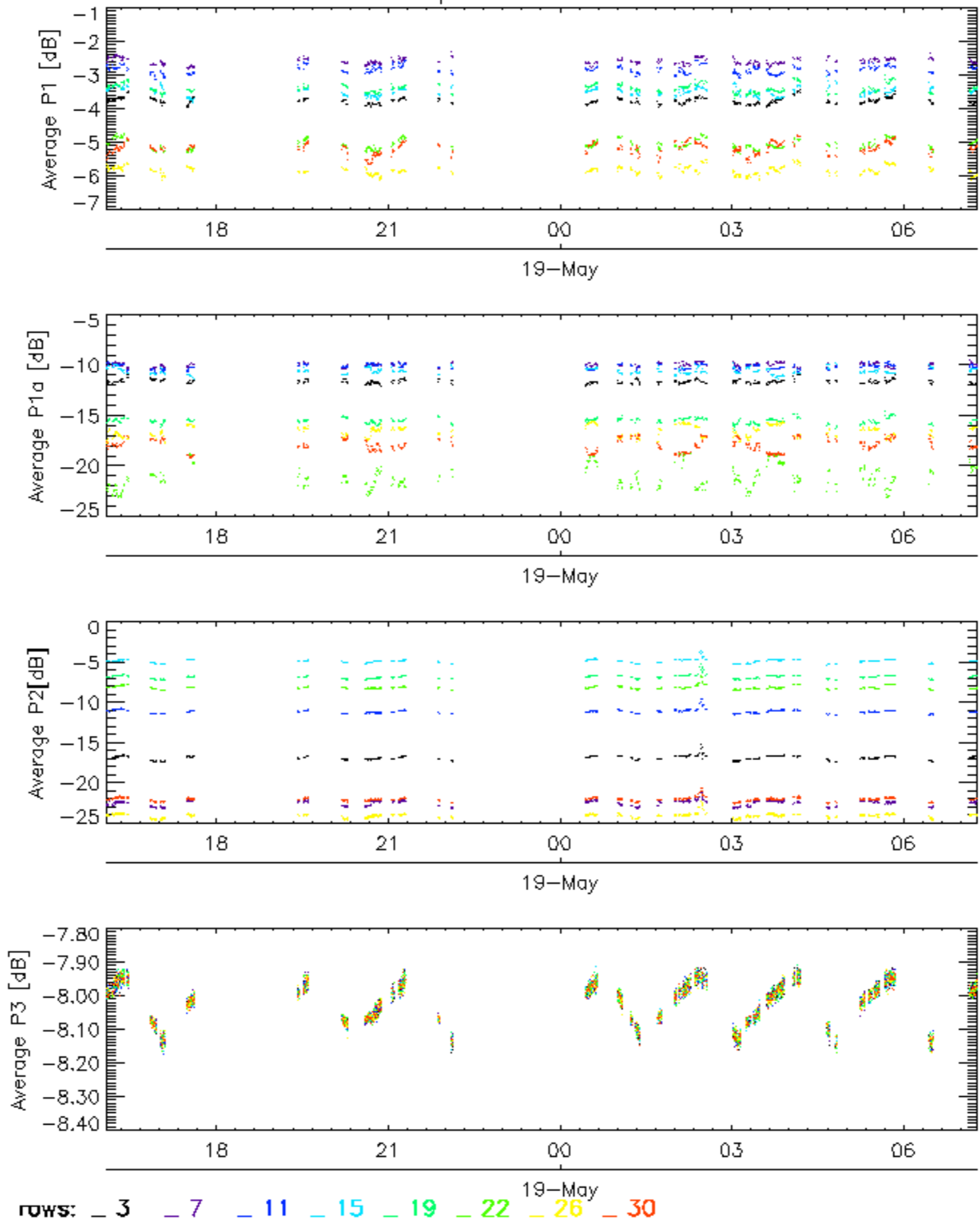
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

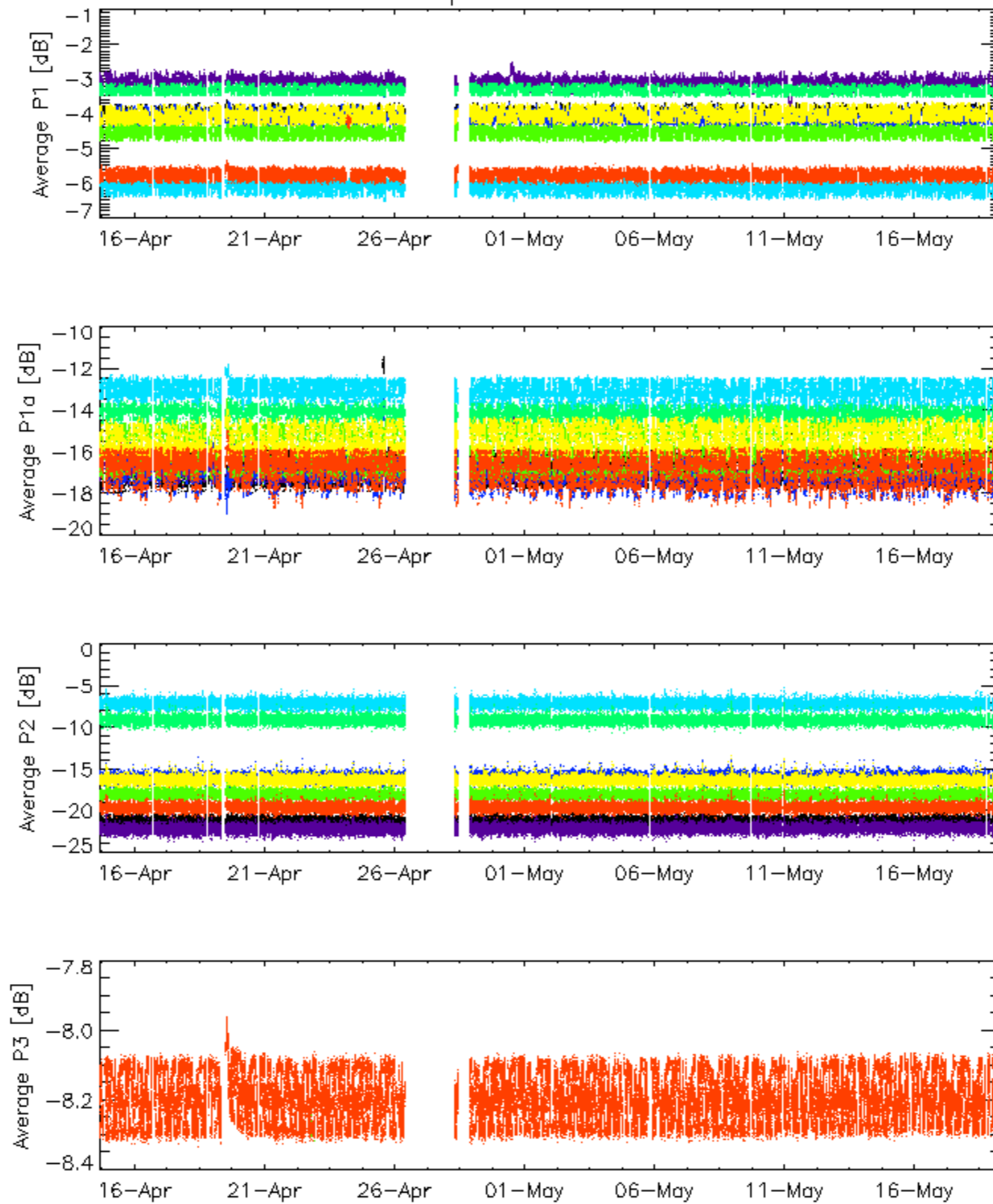


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

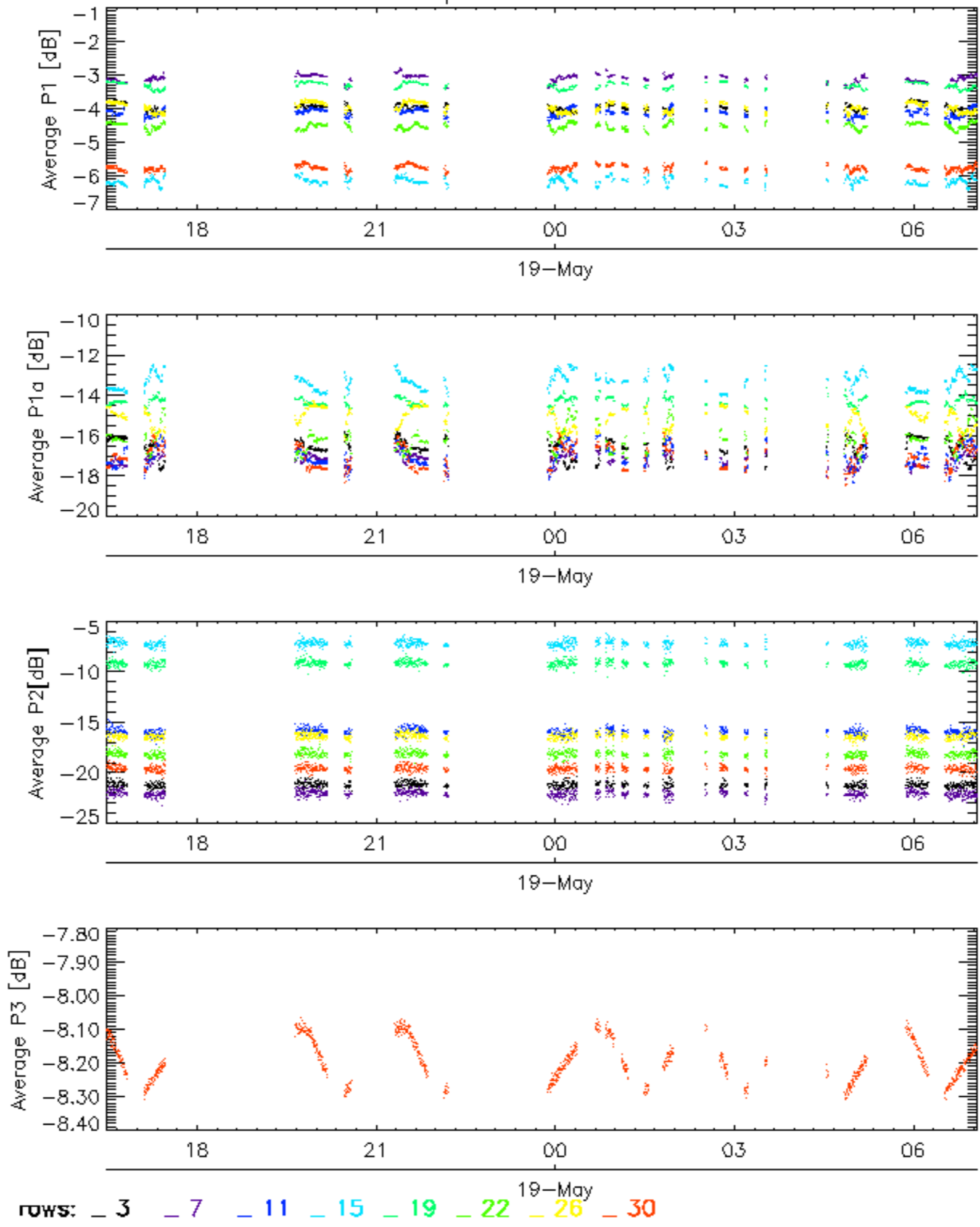


Cal pulses for WVS IS2



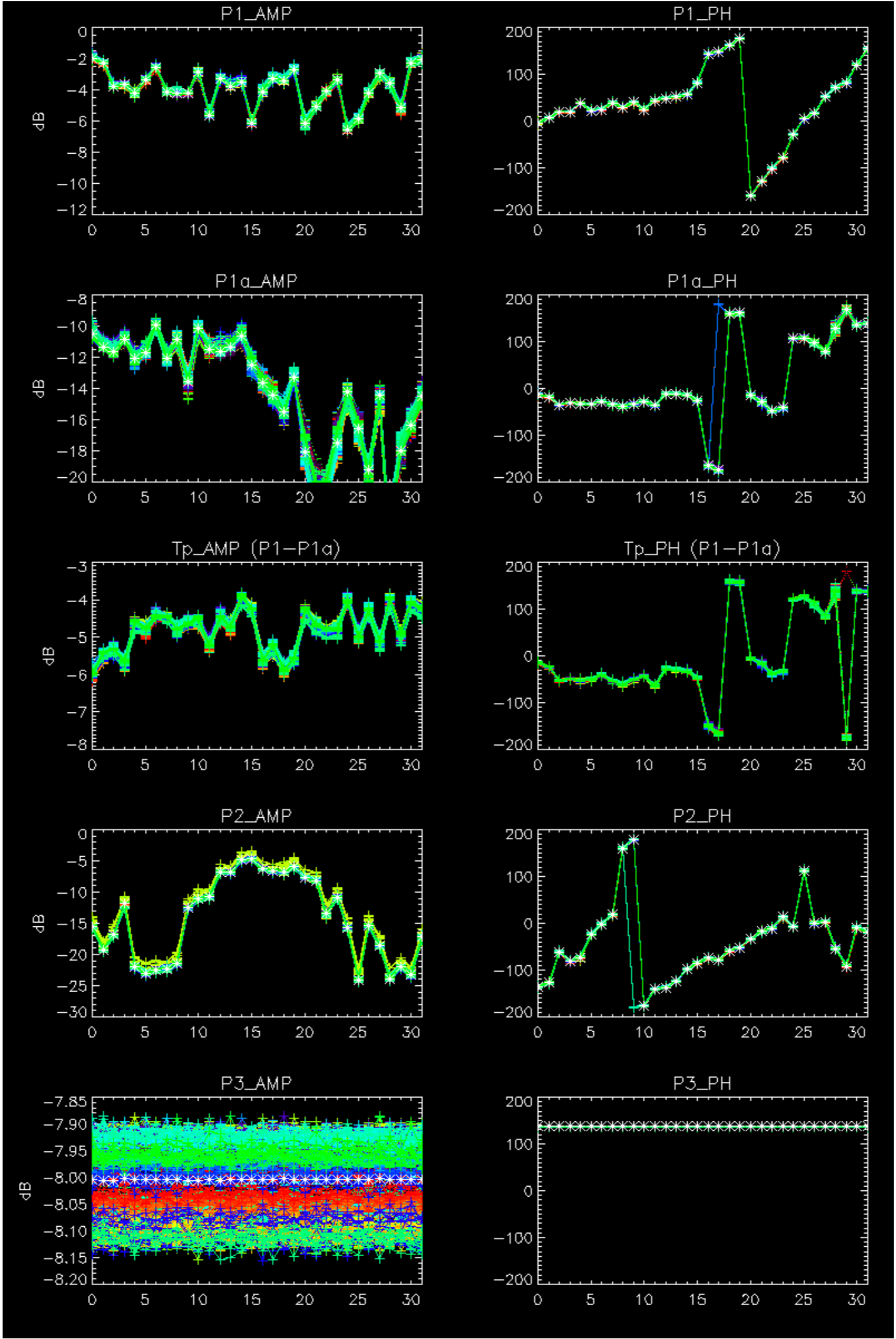
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

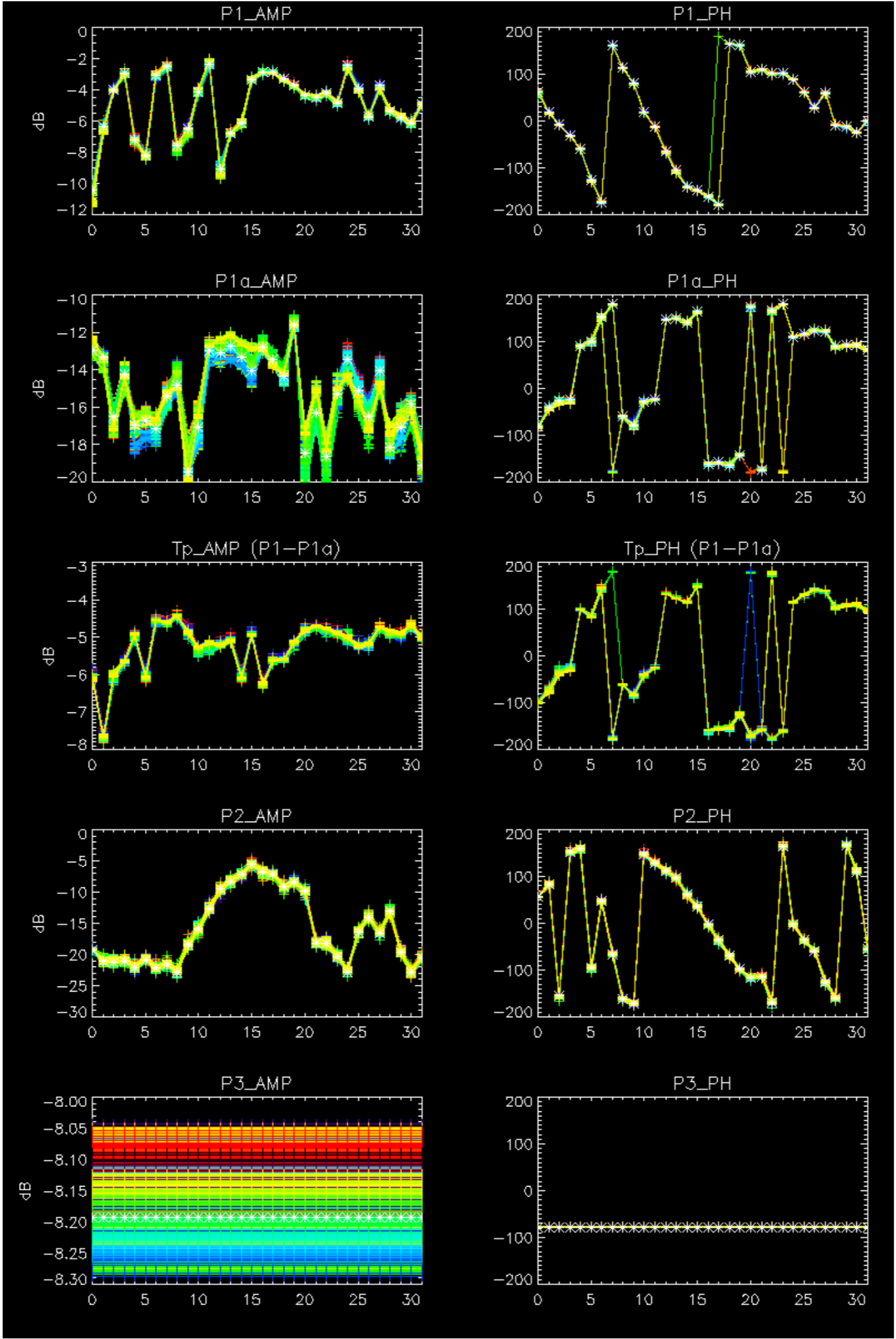
Cal pulses for WVS IS2



No anomalies observed on available browse products

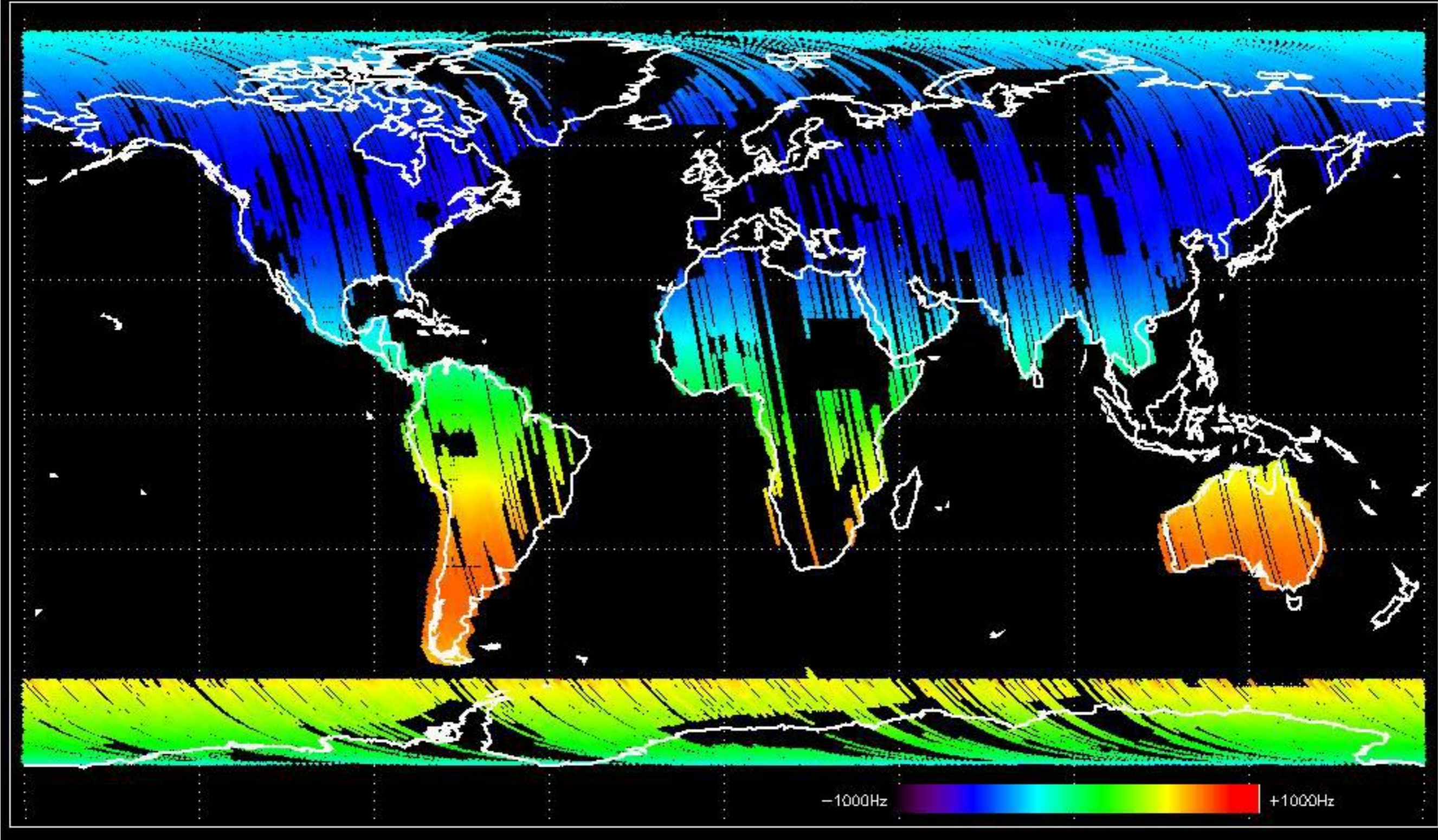
No anomalies observed.



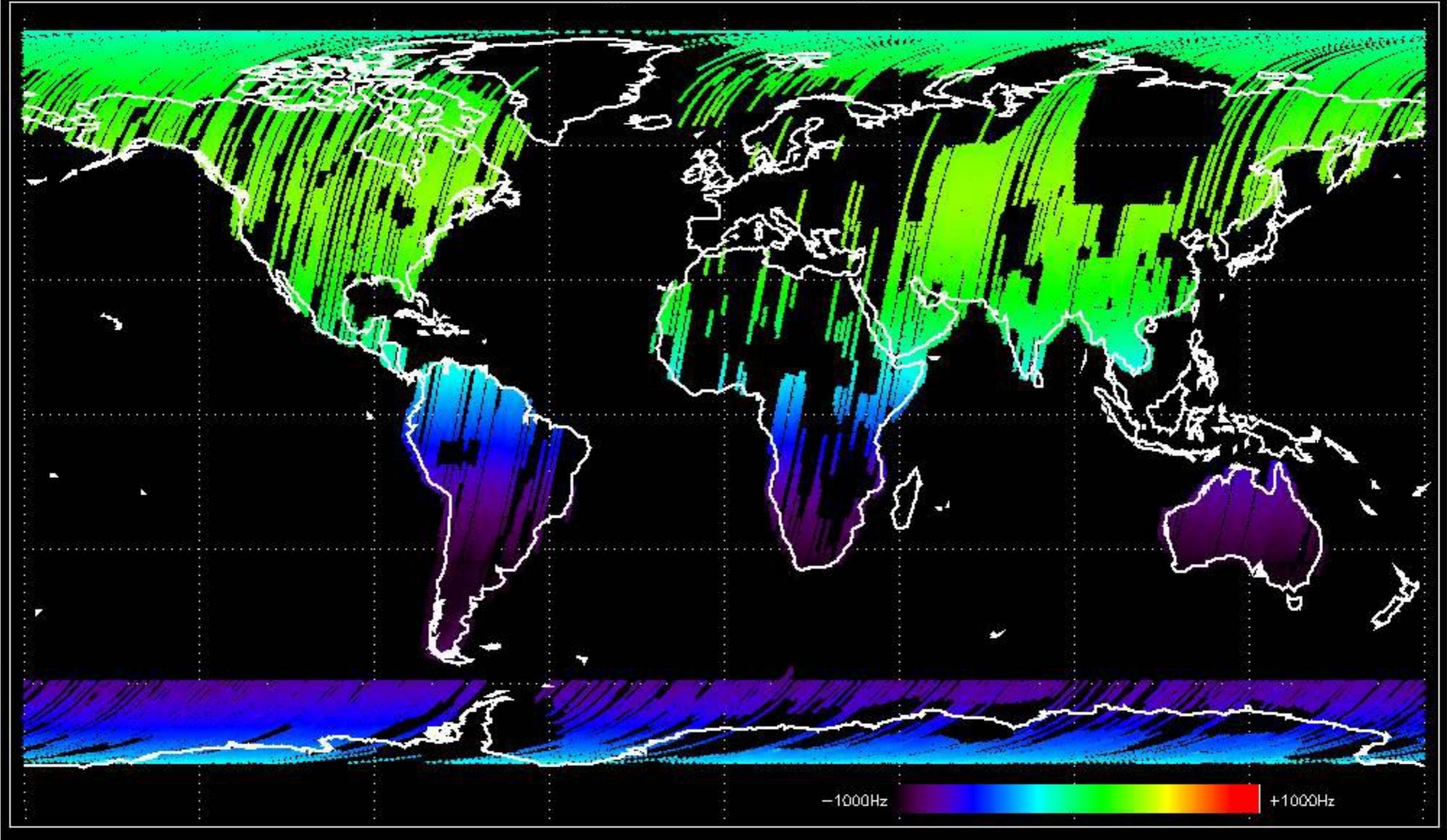


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

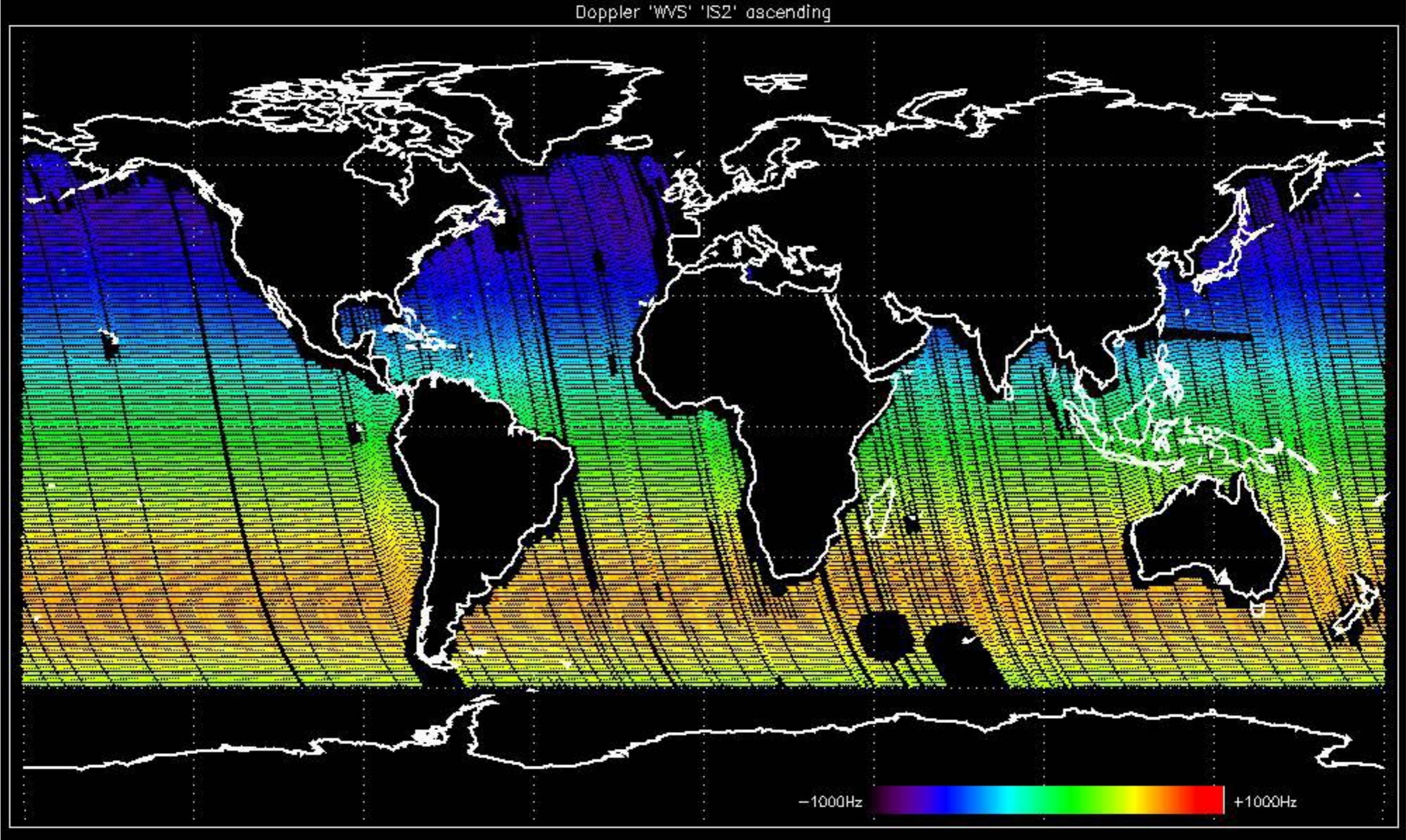
Doppler 'GM1' 'SS1' ascending



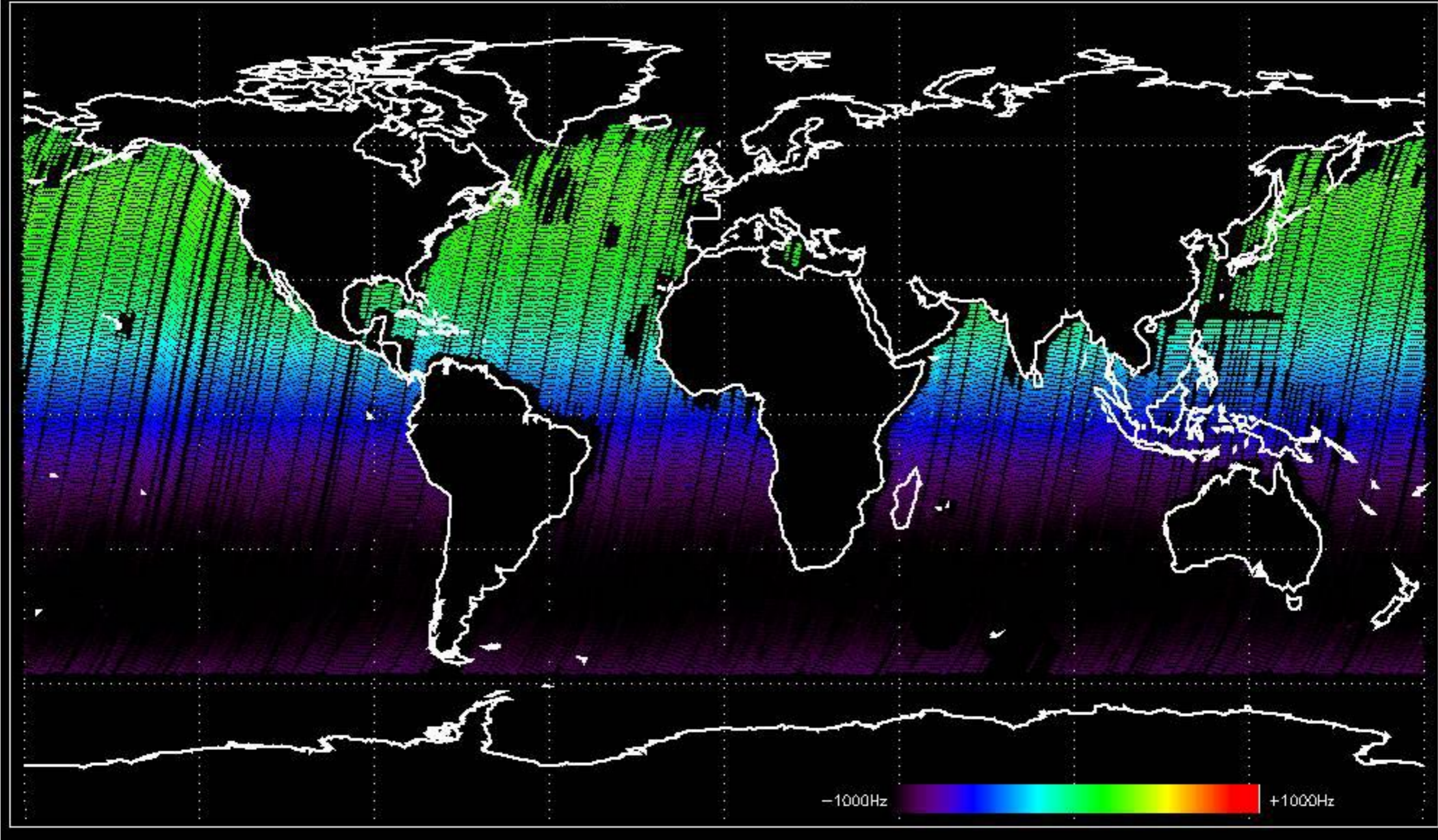
Doppler 'GM1' 'SS1' descending



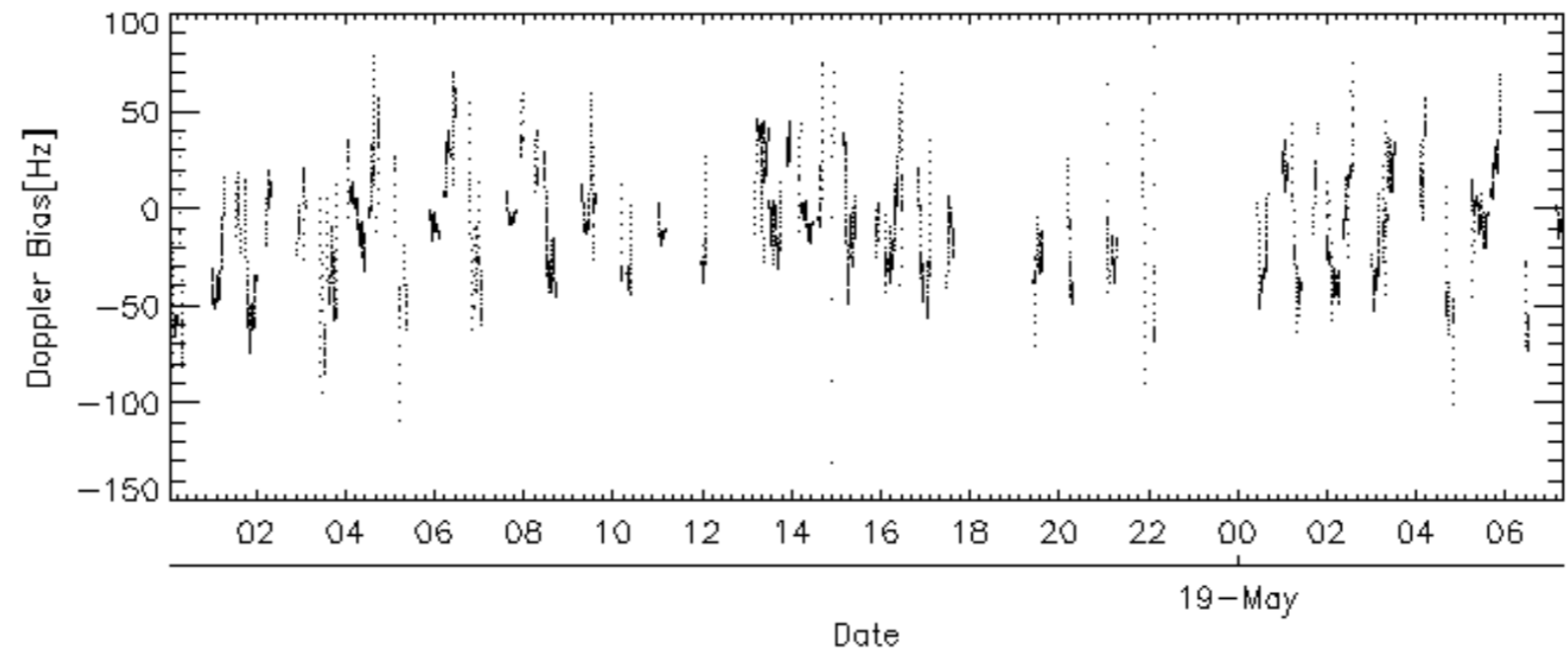
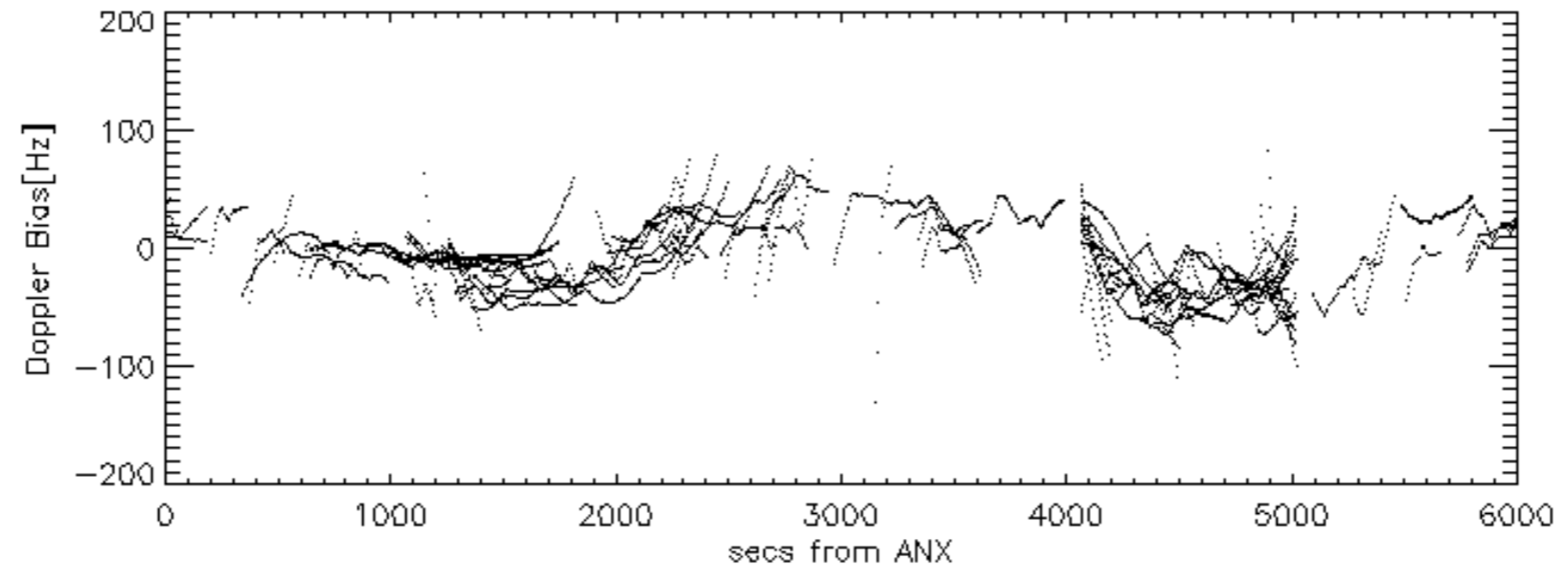
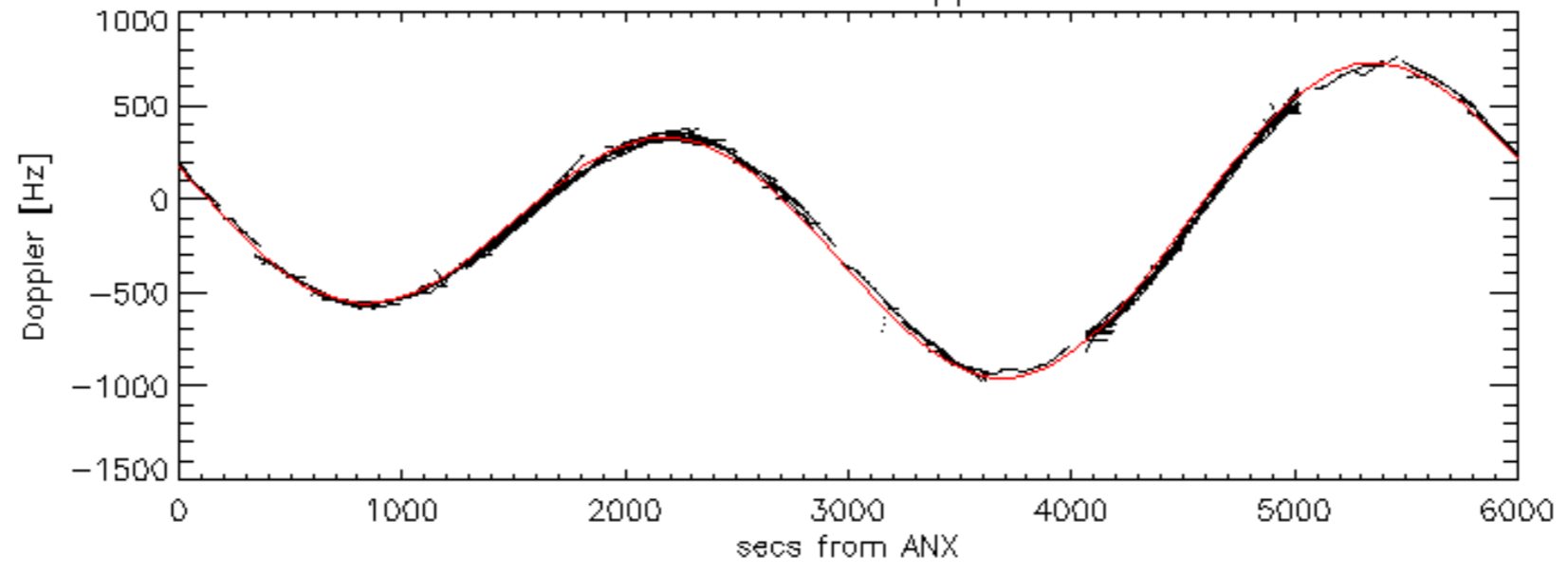
Doppler 'WVS' 'IS2' ascending

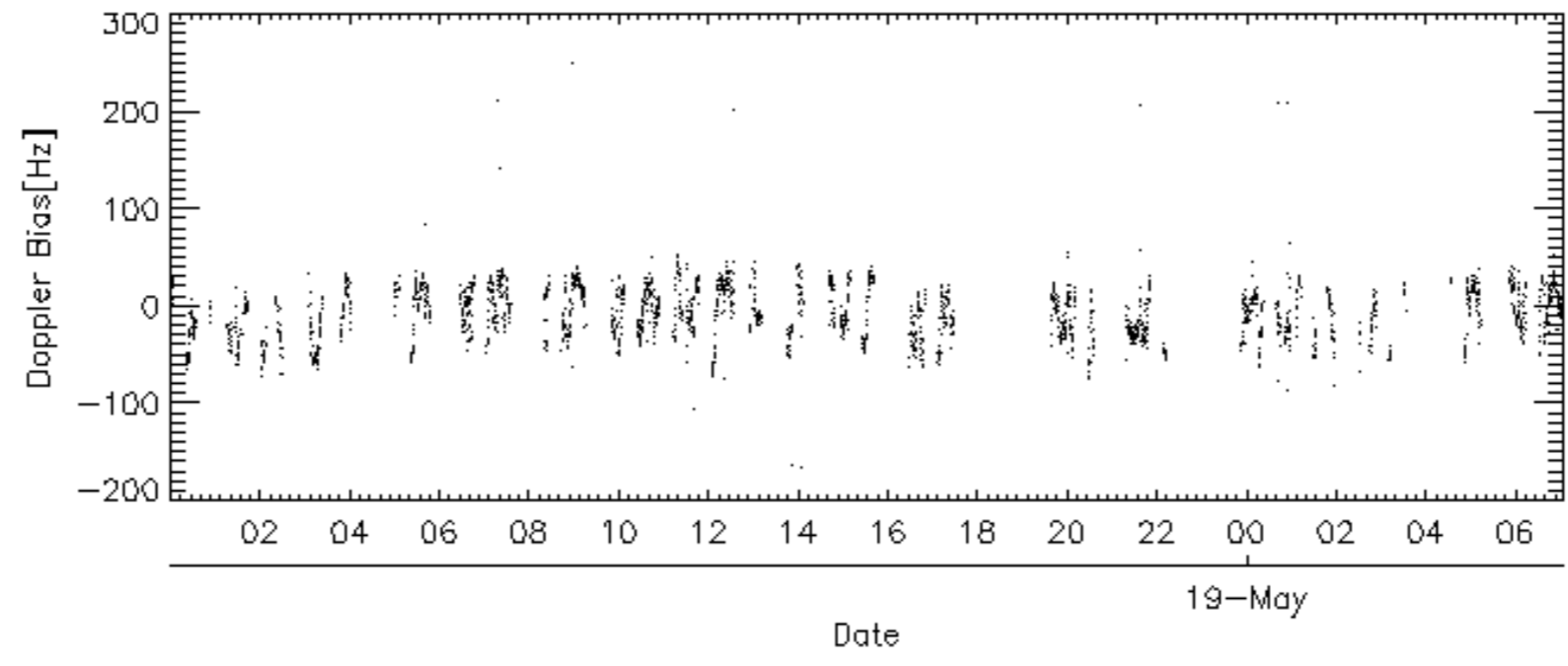
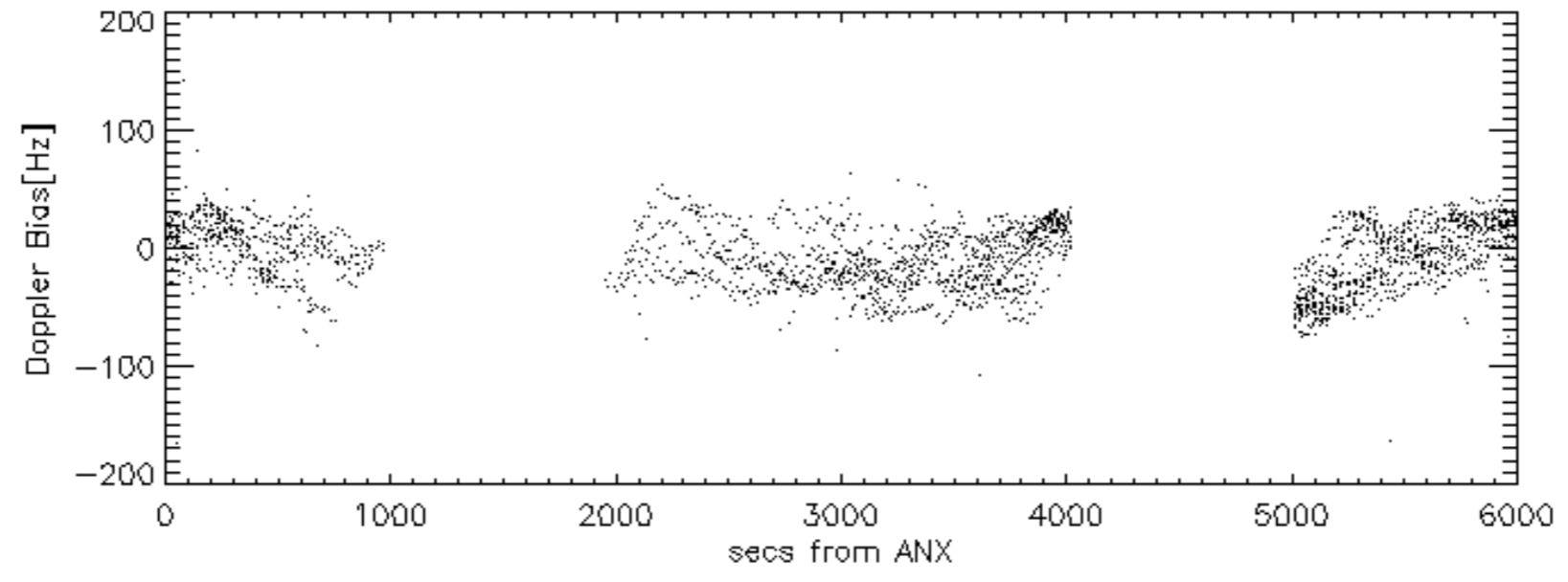
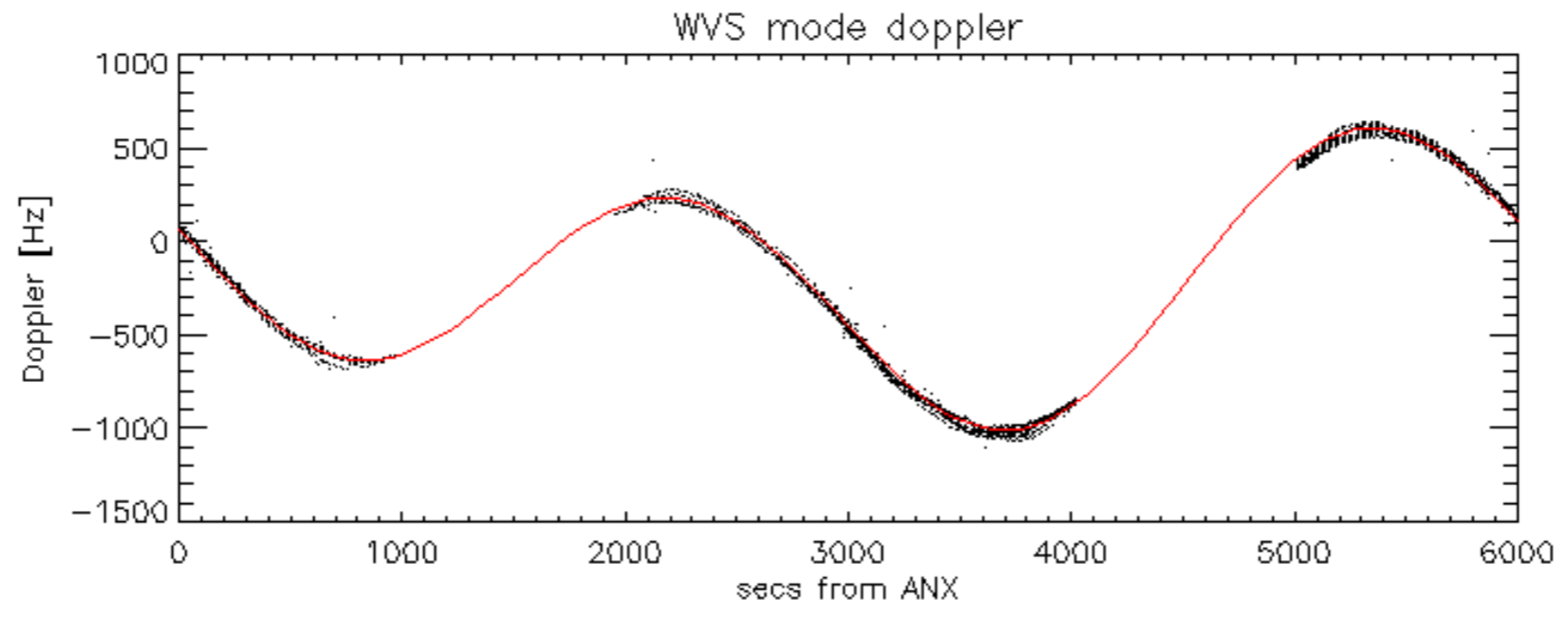


Doppler 'WVS' 'IS2' descending

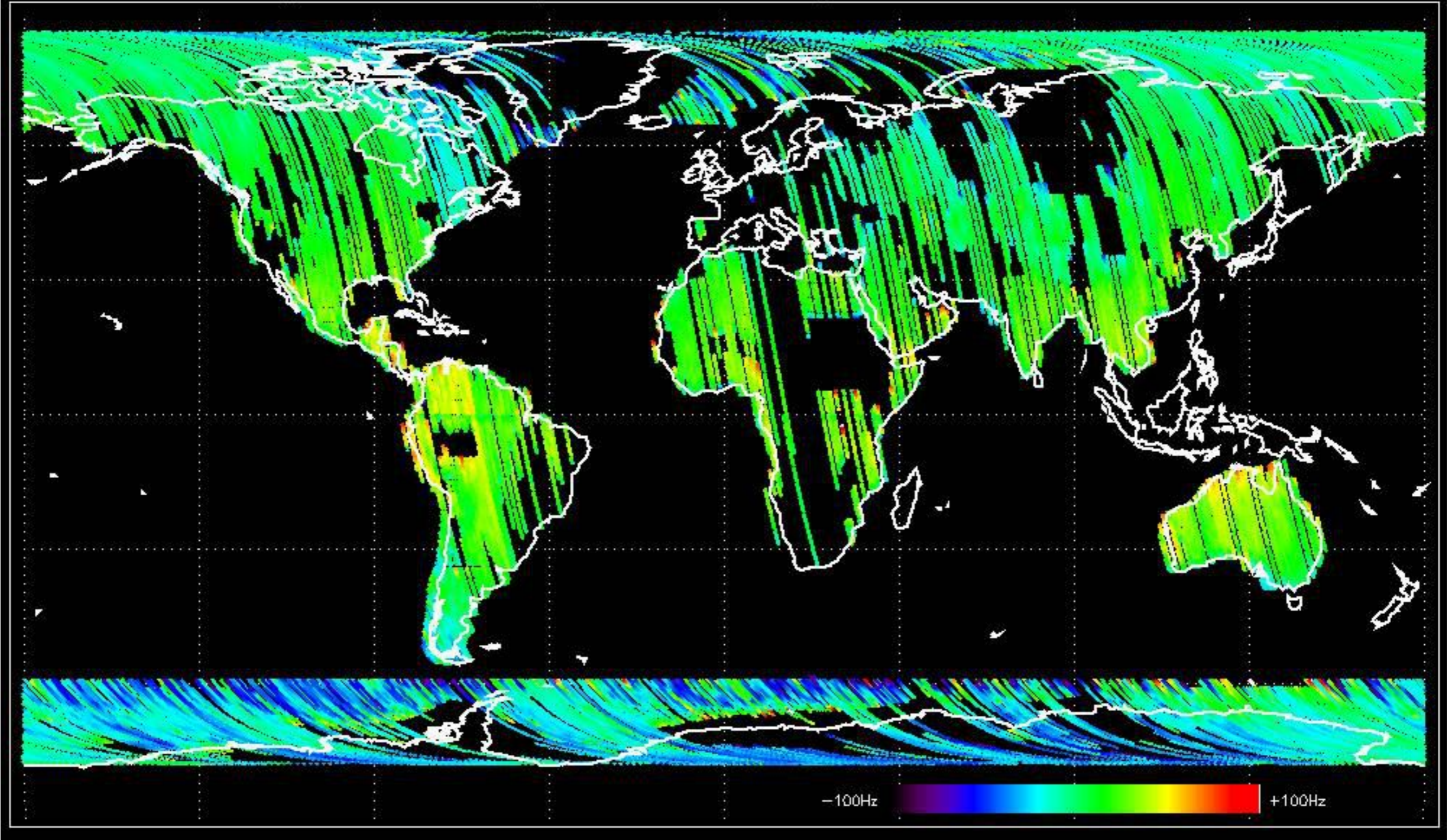


GM1 mode doppler

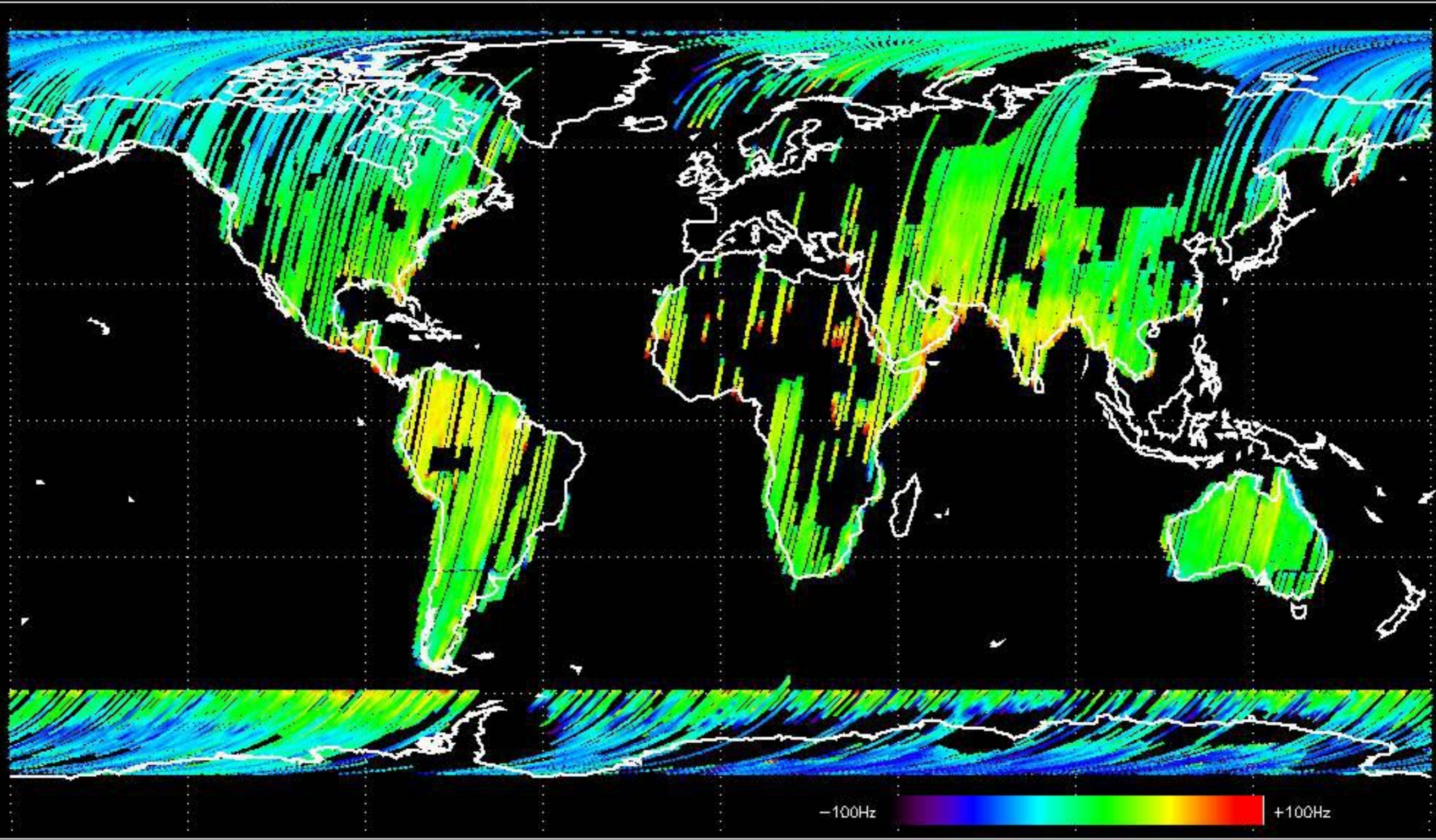




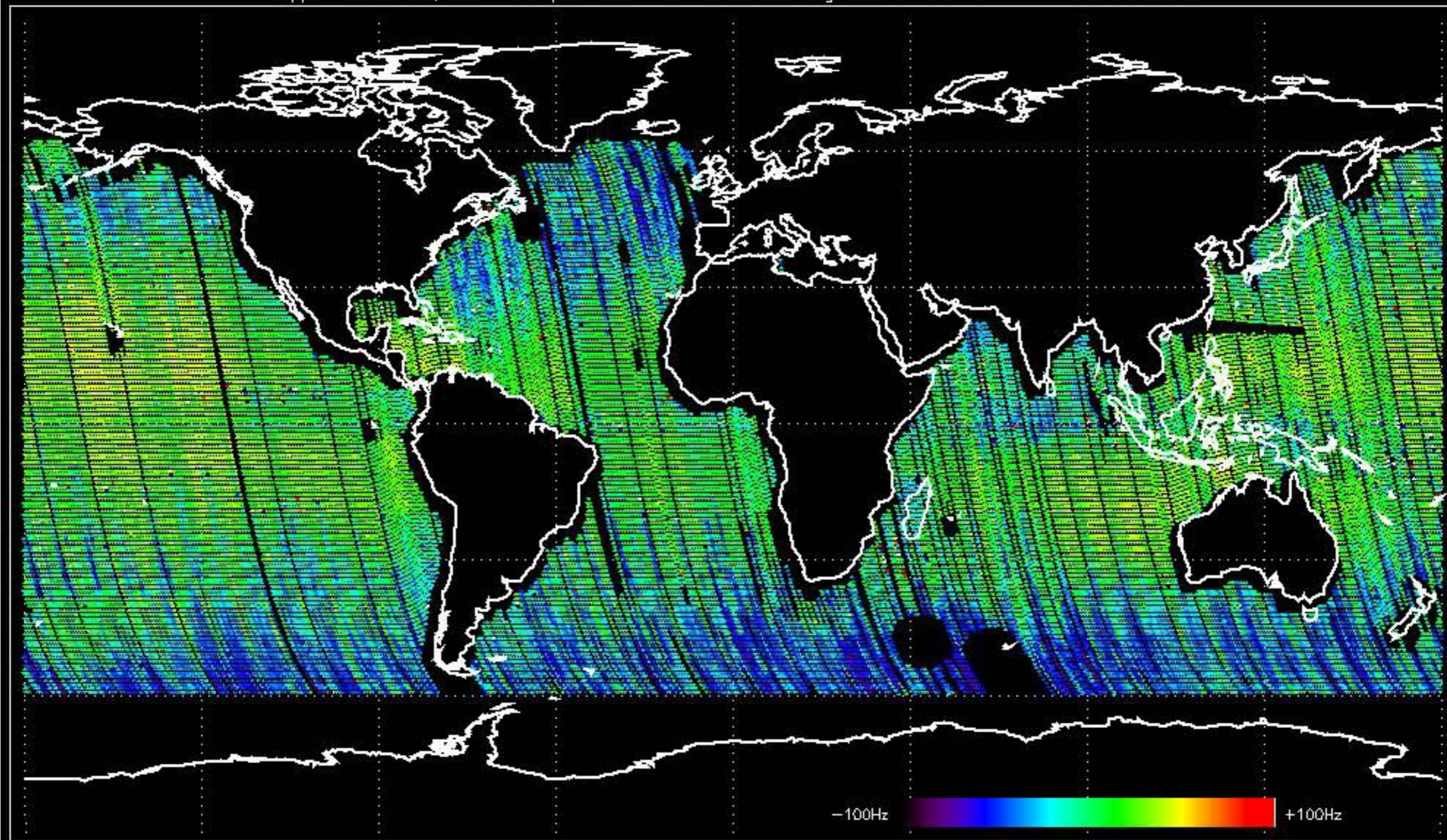
Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -14.304698 Hz



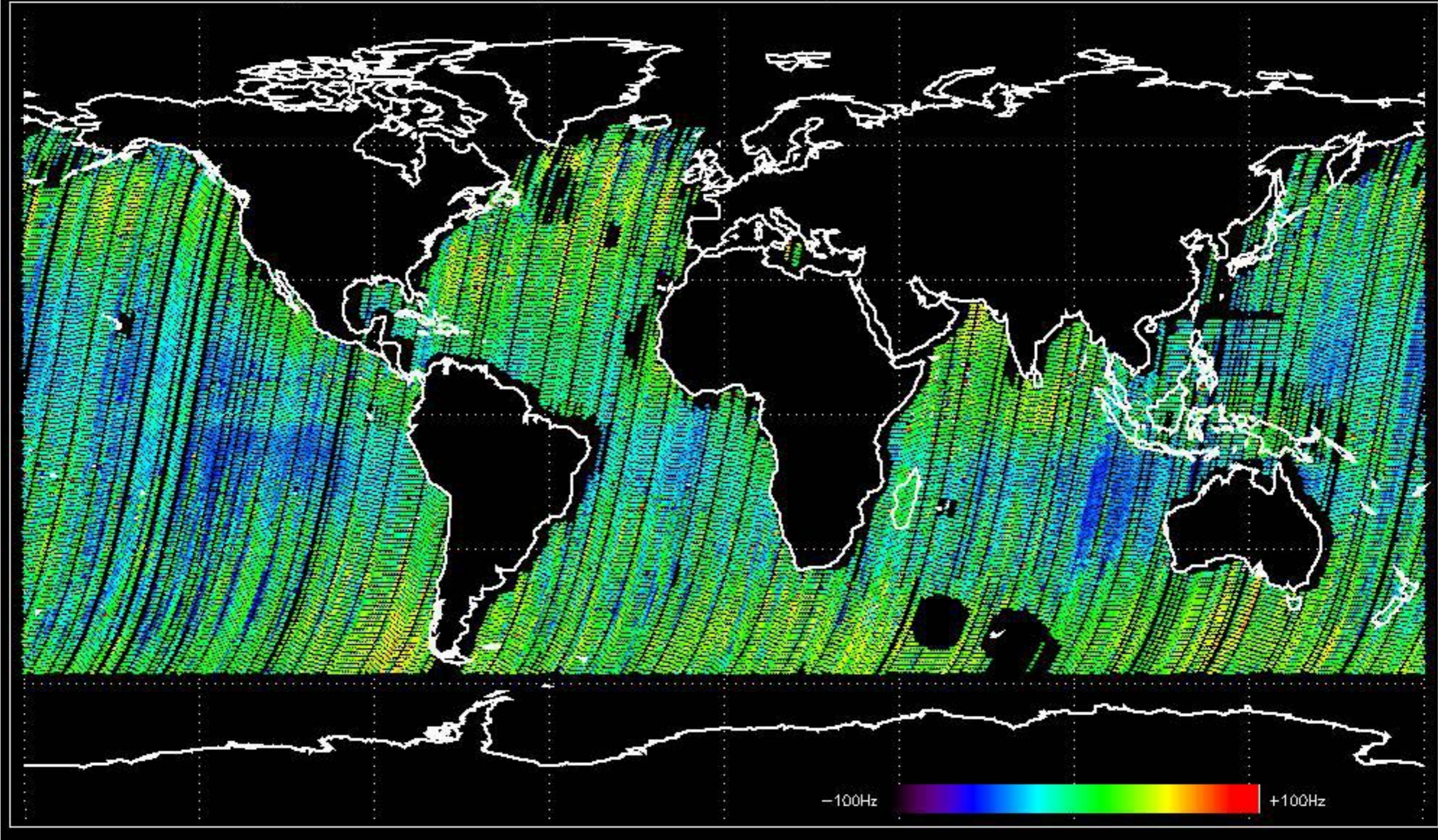
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -3.6884014 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -6.6648516 Hz

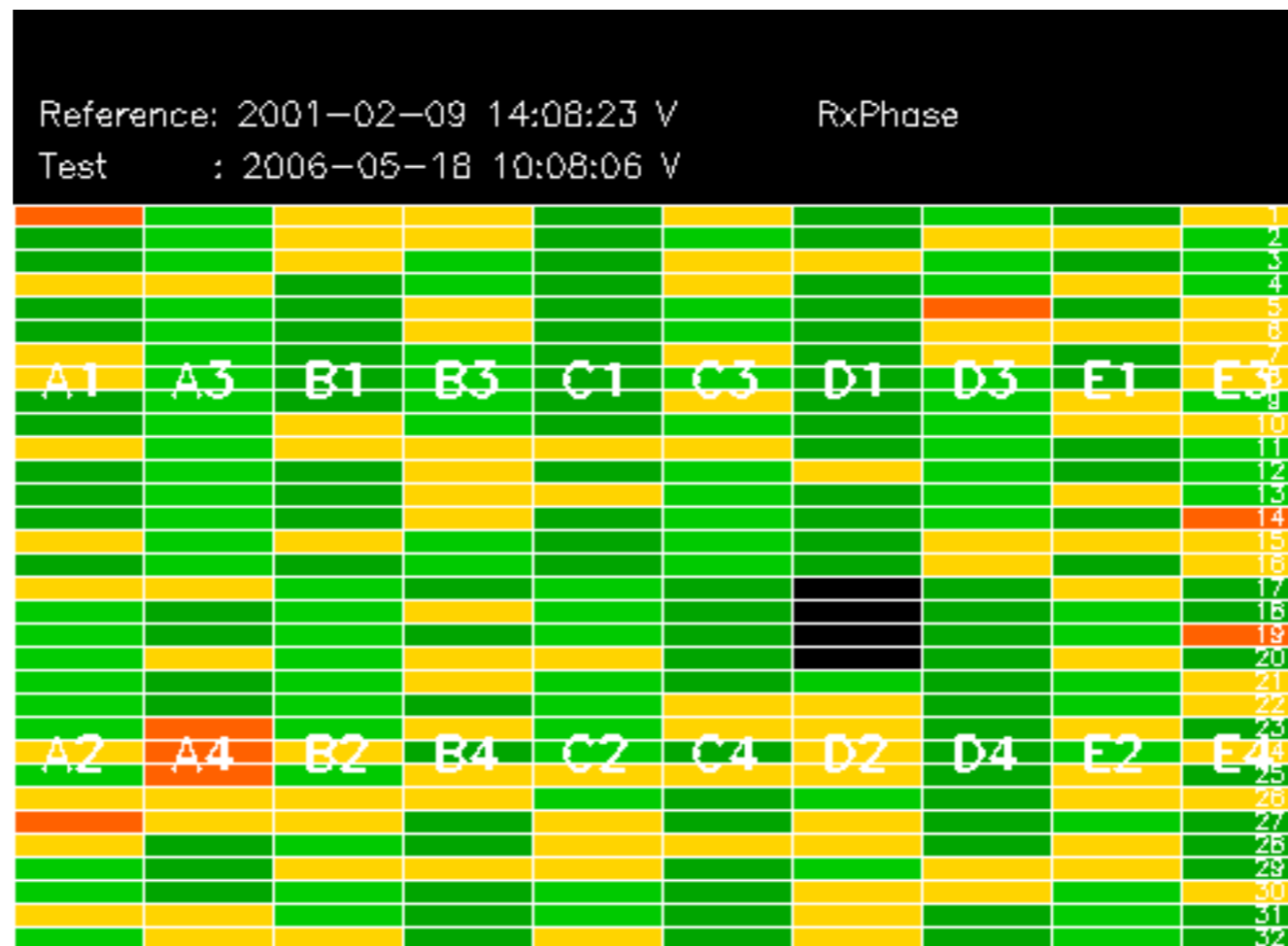


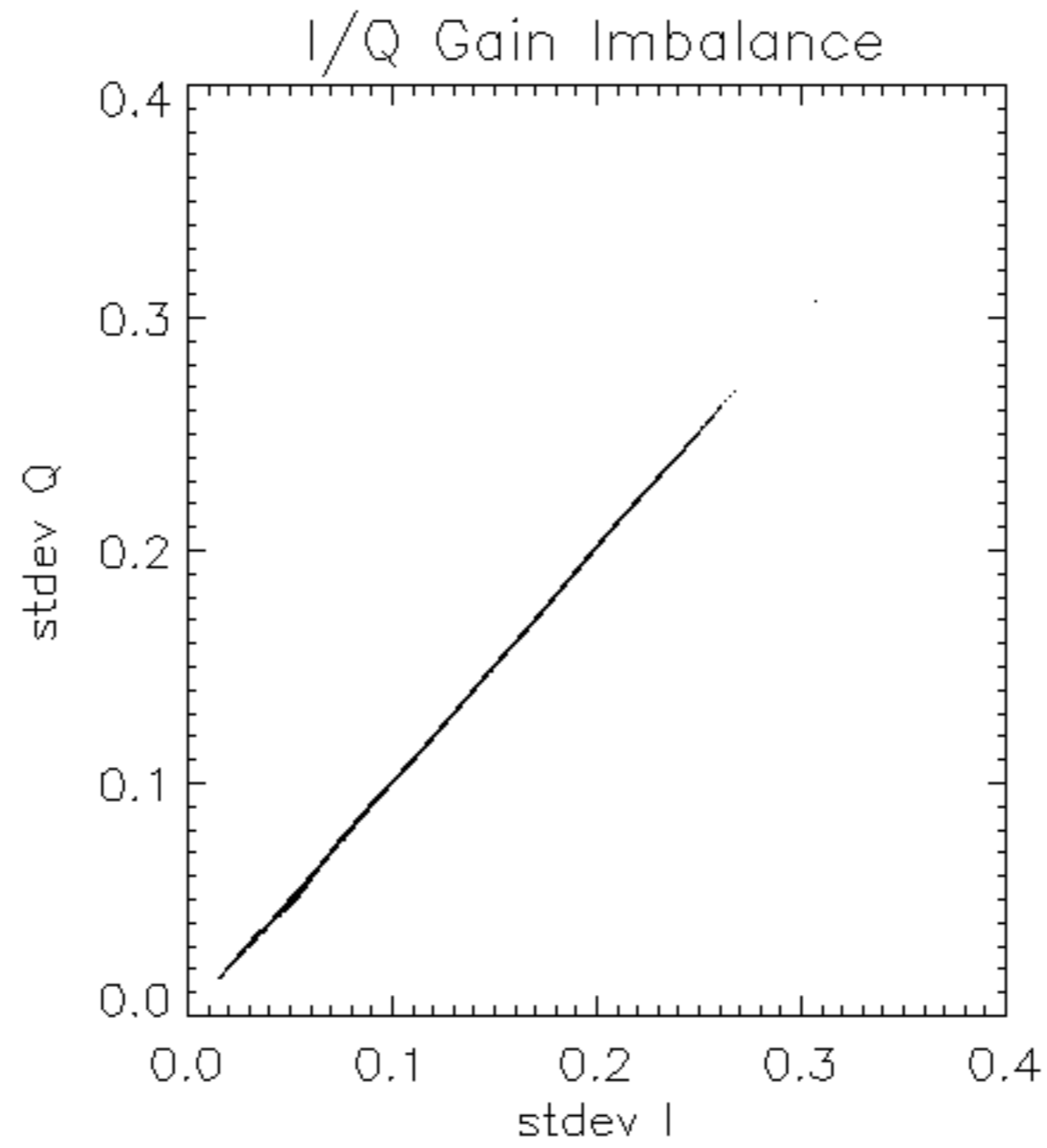
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -10.926390 Hz

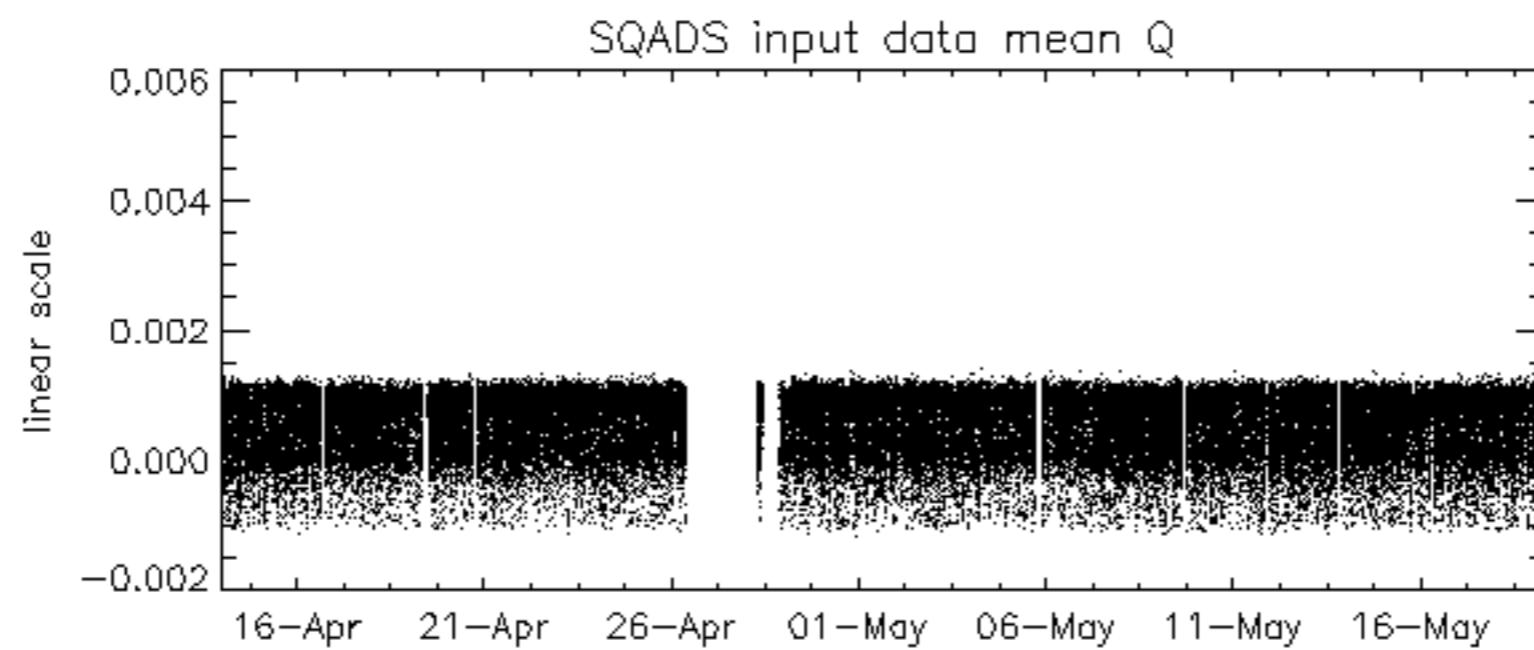
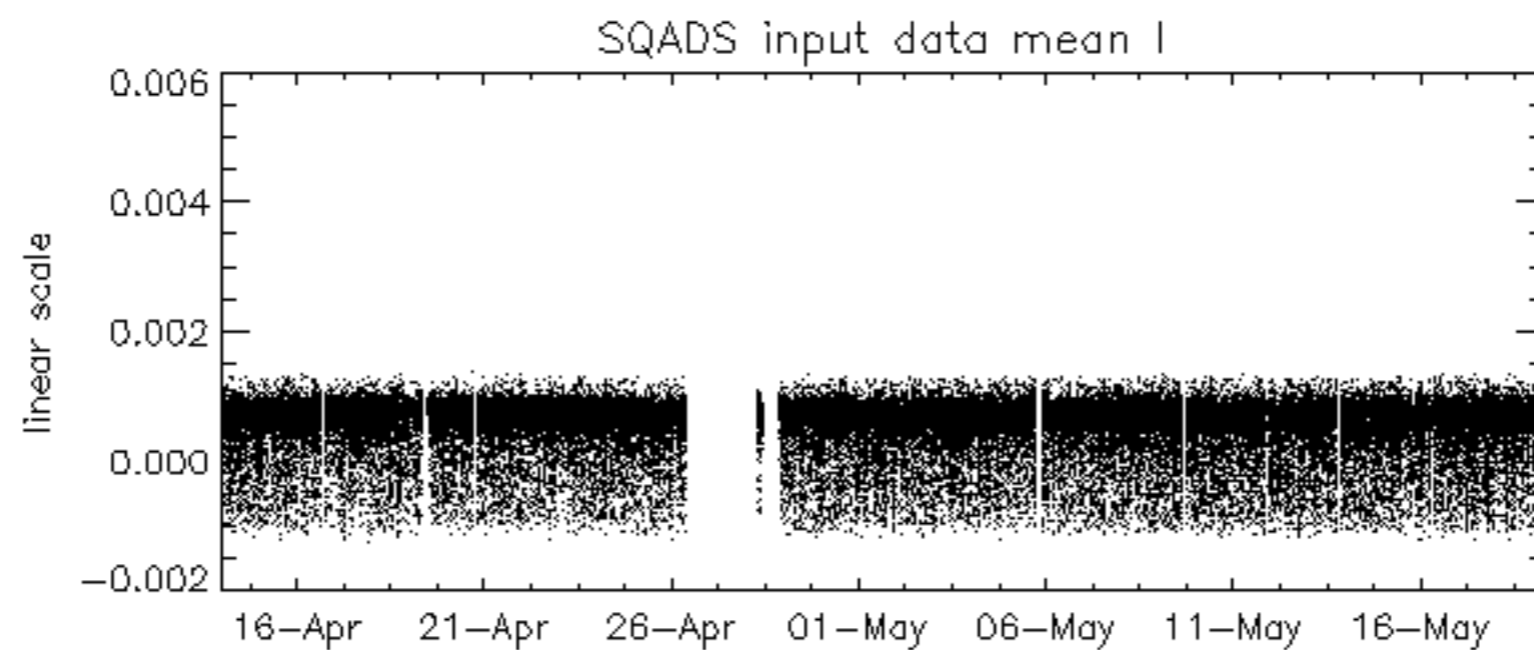
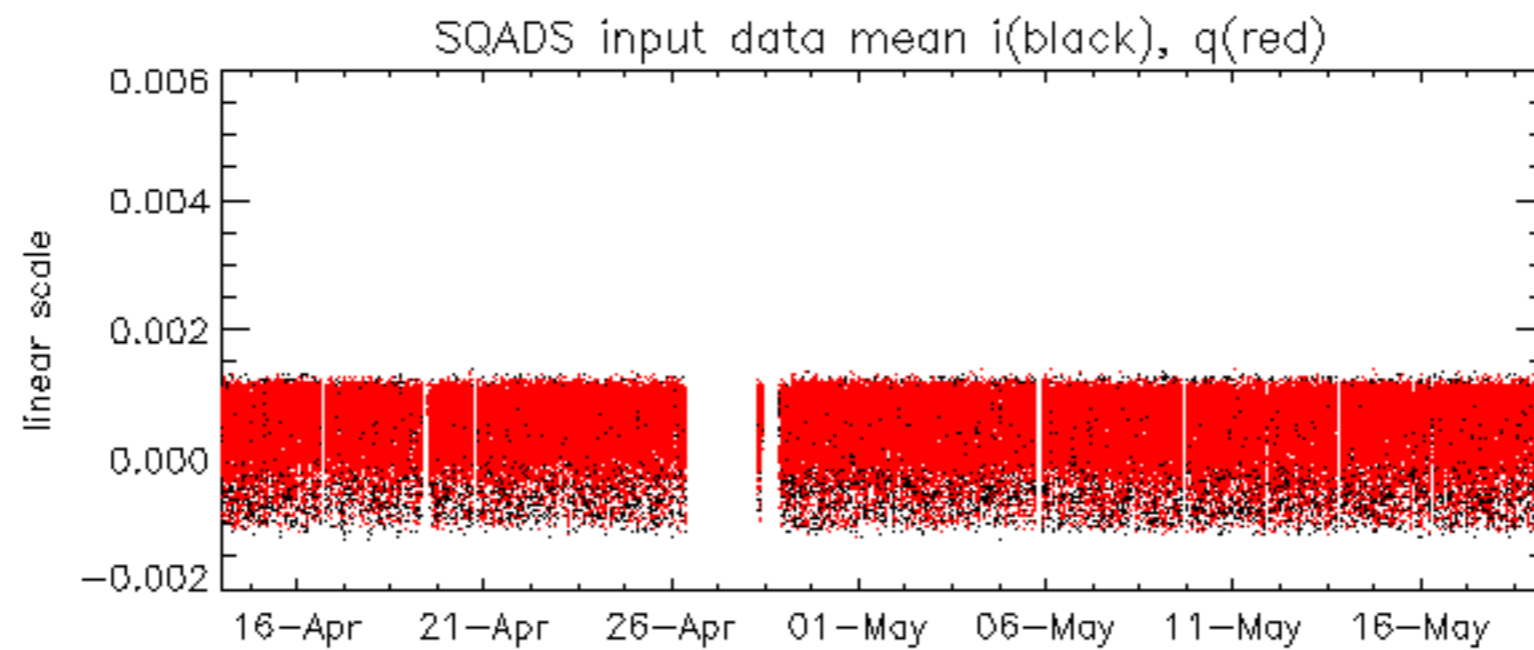


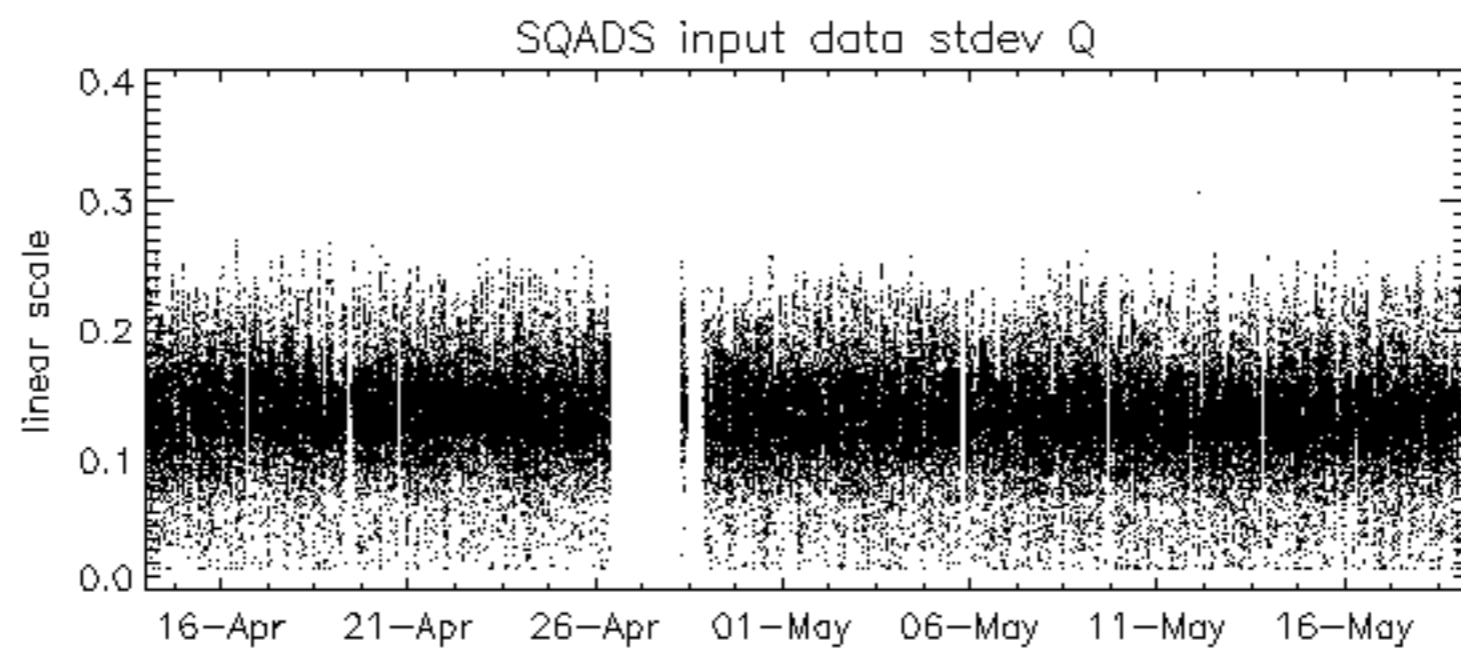
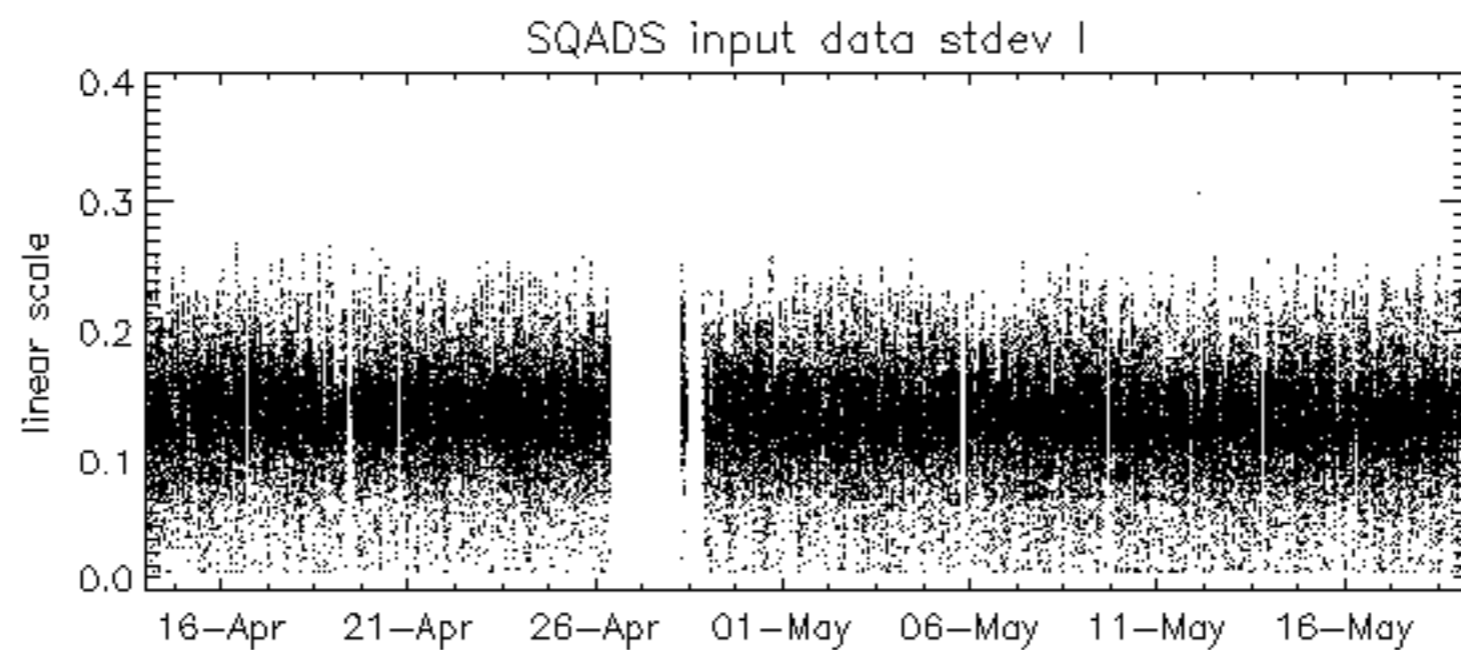
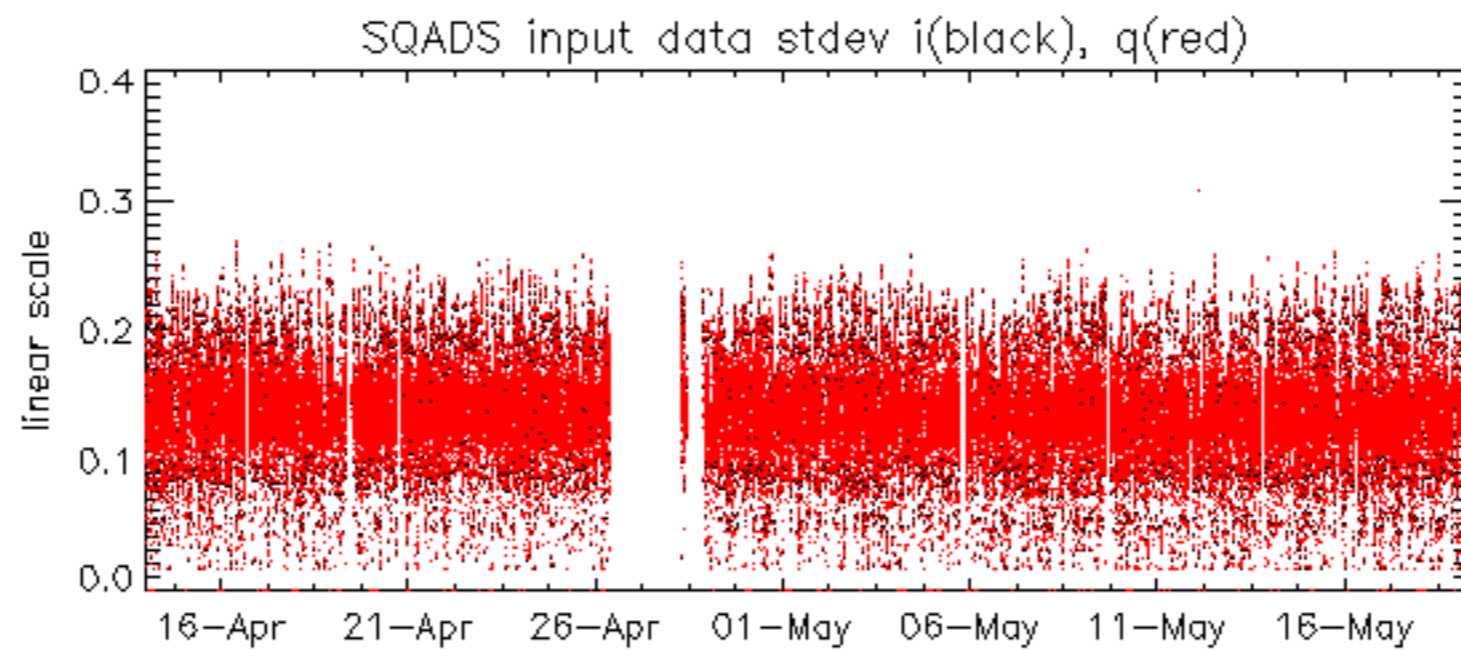
No anomalies observed on available MS products:

No anomalies observed.





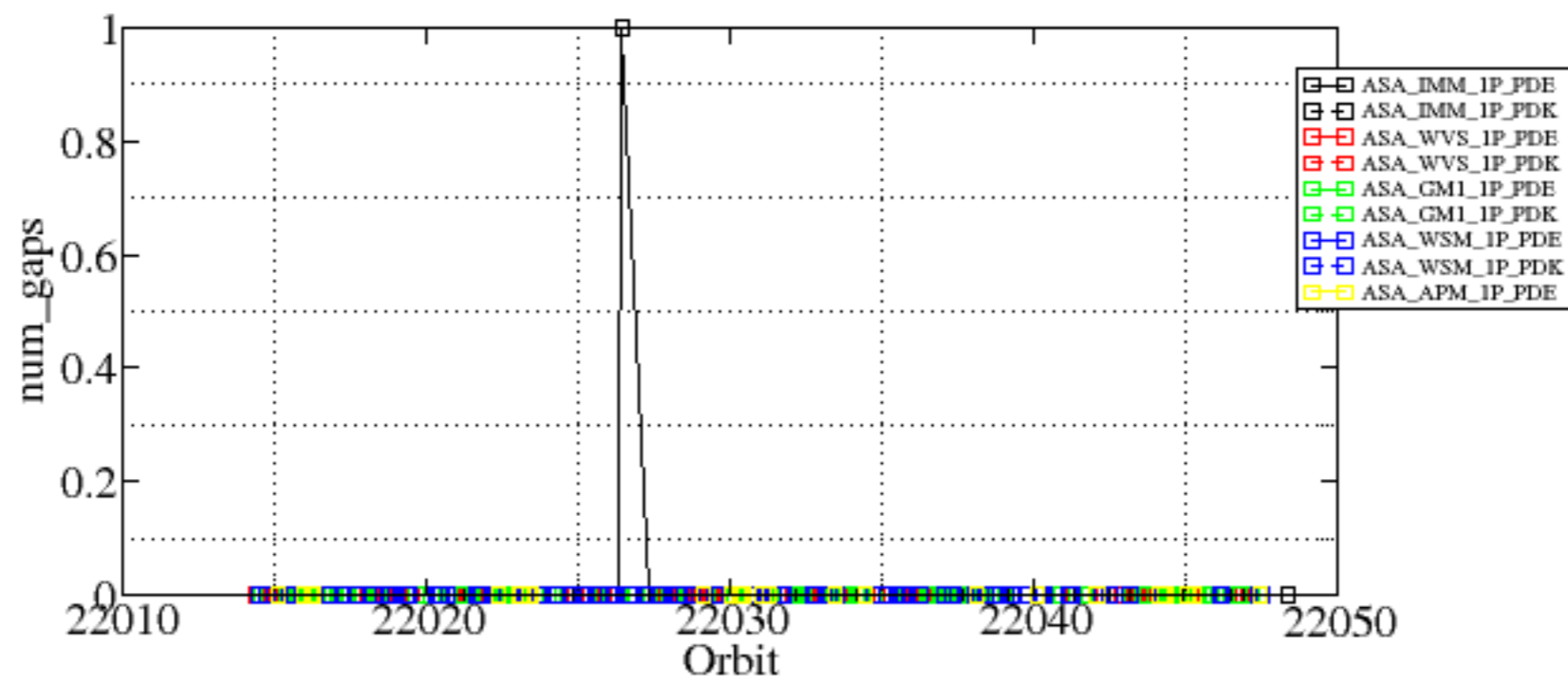


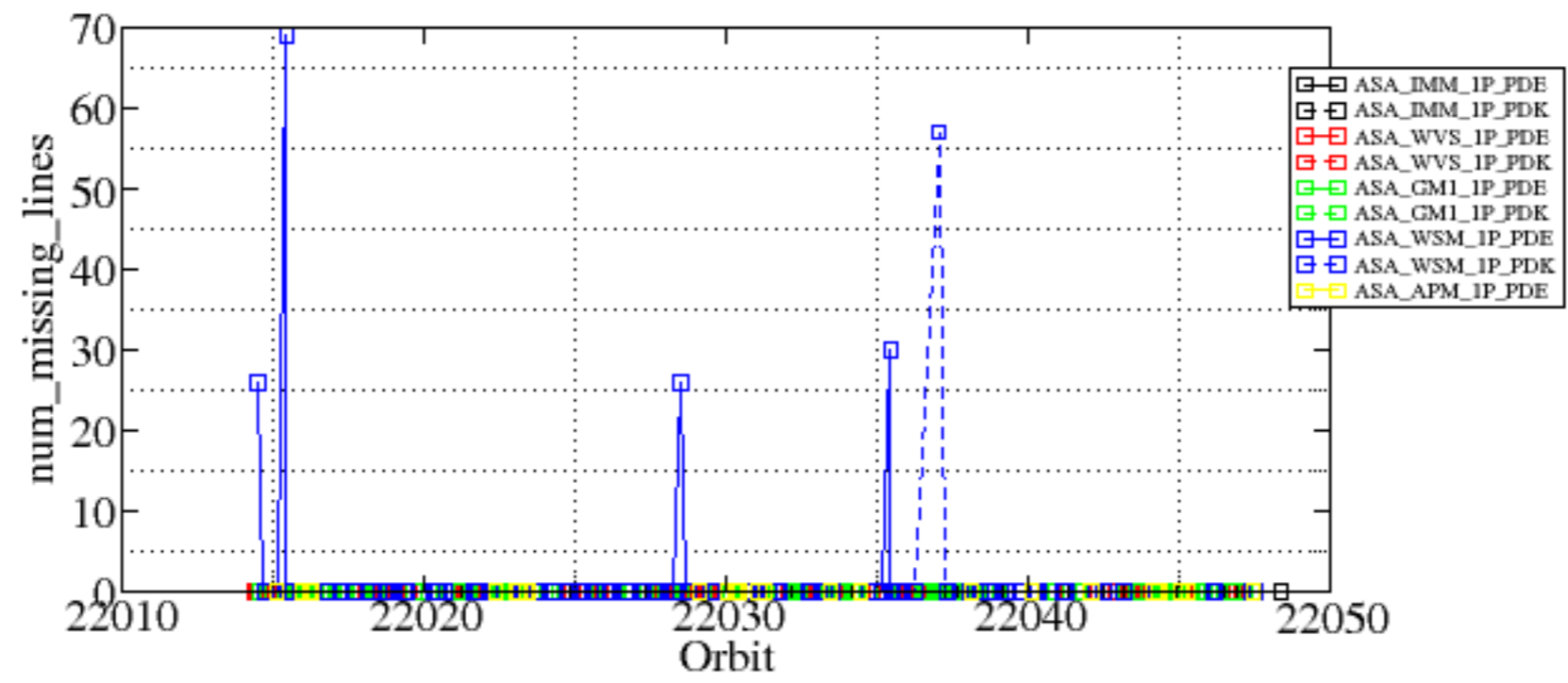


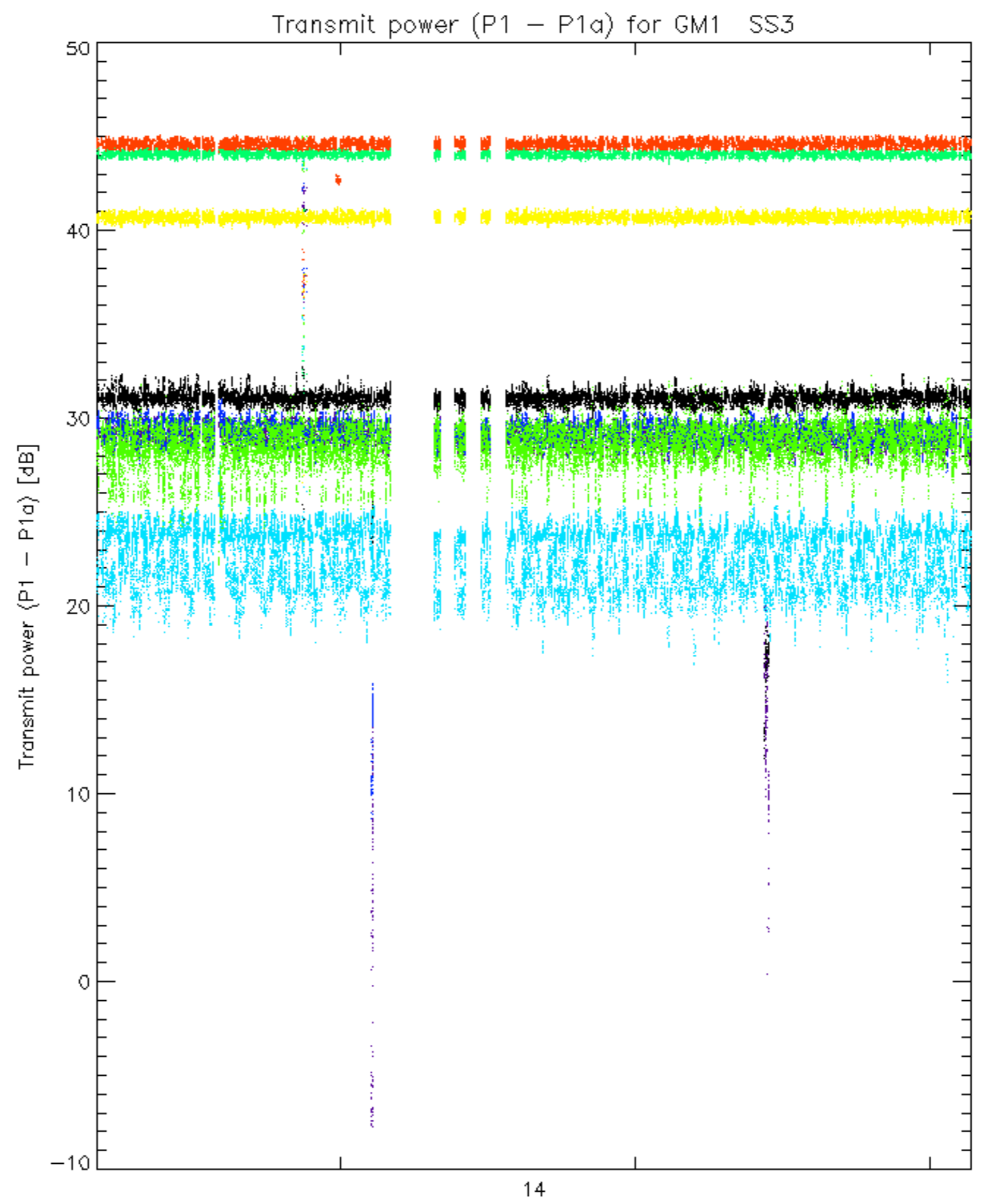
Summary of analysis for the last 3 days 2006051[789]

The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

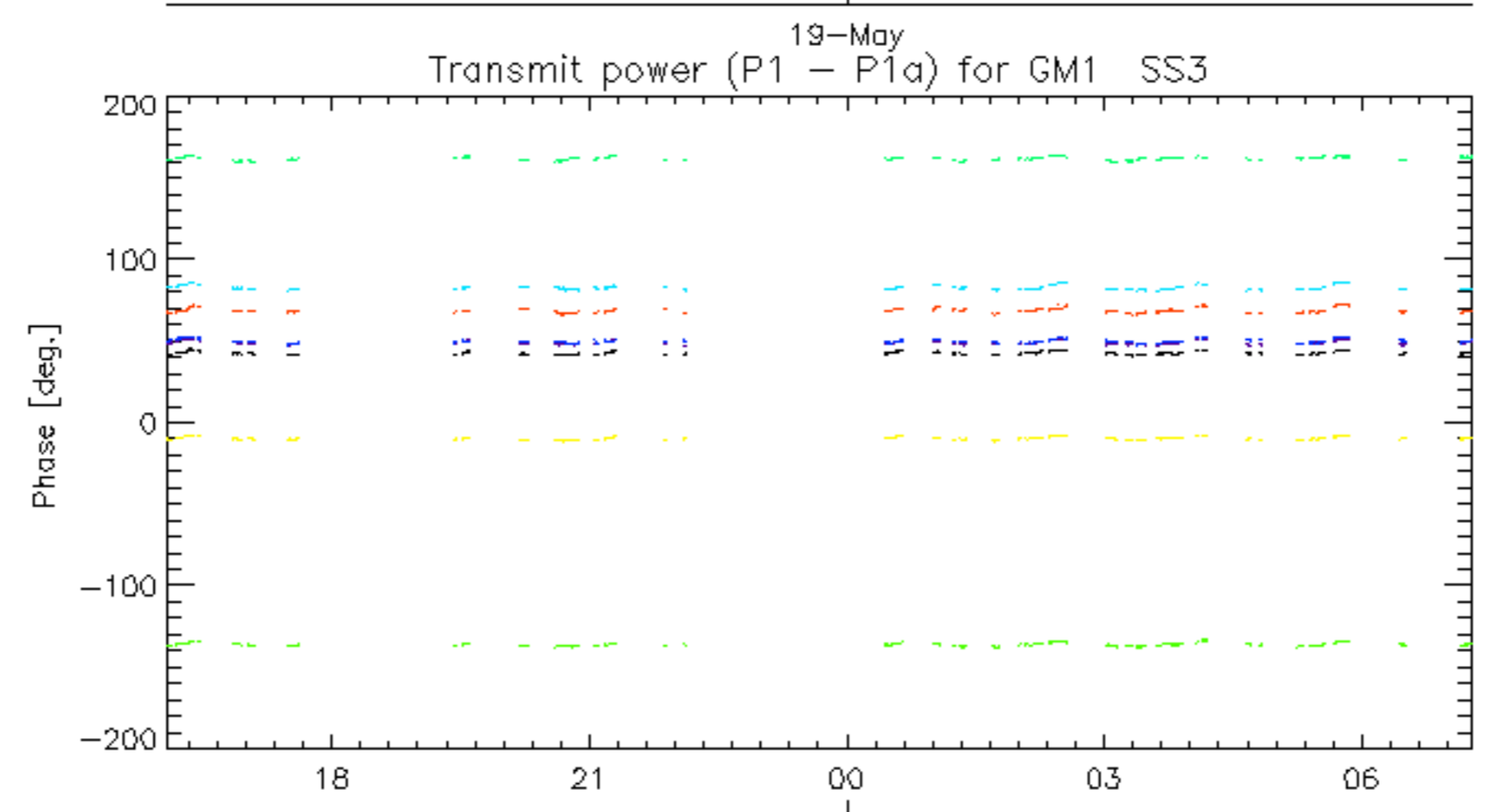
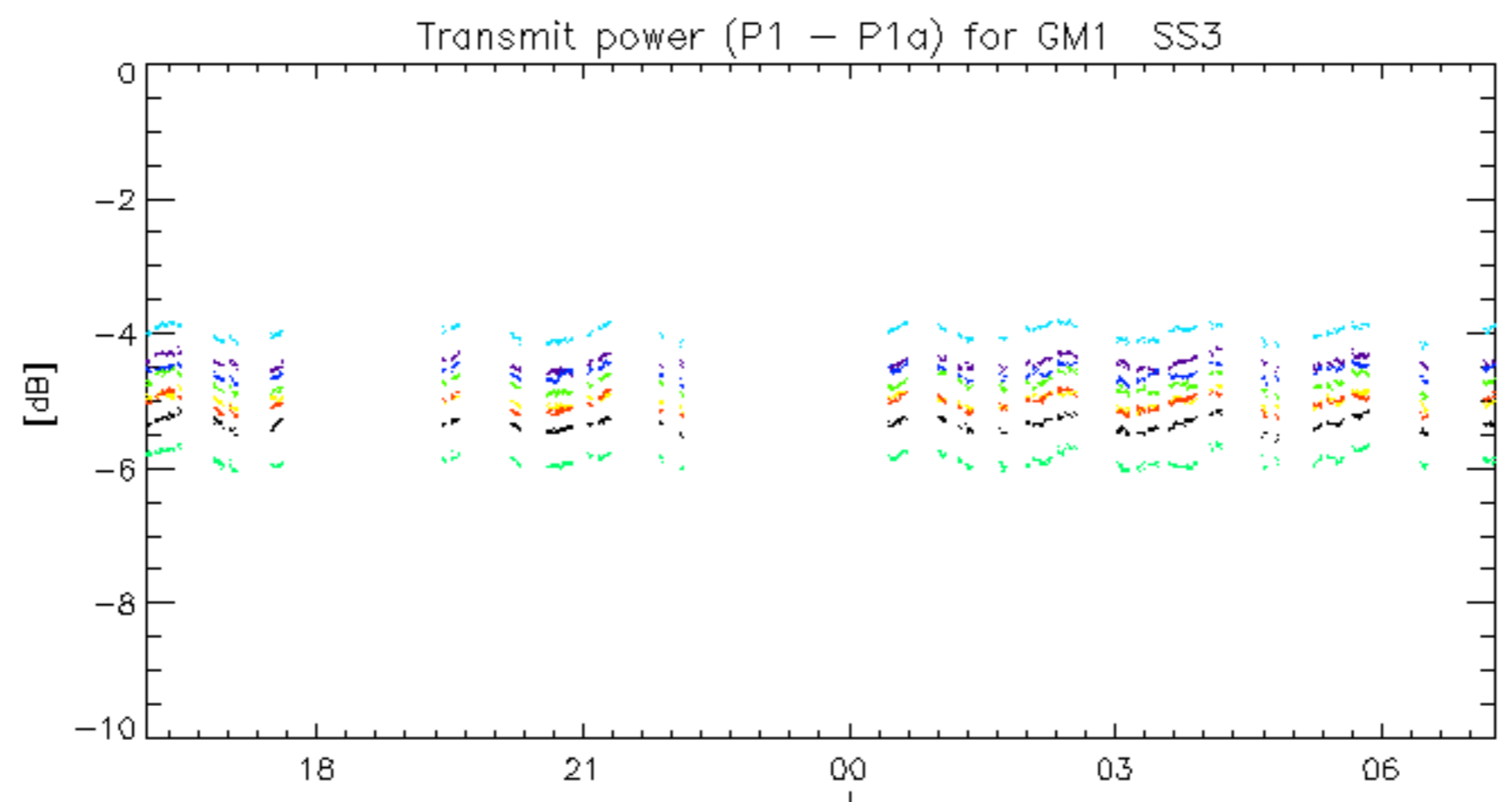
Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20060517_202031_000000362047_00429_22026_5398.N1	1	0
ASA_WSM_1PNPDE20060517_001650_000000852047_00417_22014_9559.N1	0	26
ASA_WSM_1PNPDE20060517_015318_000000672047_00418_22015_9563.N1	0	69
ASA_WSM_1PNPDE20060517_234613_0000003302047_00431_22028_9726.N1	0	26
ASA_WSM_1PNPDE20060518_112524_000000672047_00438_22035_9798.N1	0	30
ASA_WSM_1PNPDK20060518_140701_000000912047_00440_22037_5419.N1	0	57
ASA_WSM_1PNPDK20060518_140704_000000852047_00440_22037_5450.N1	0	57



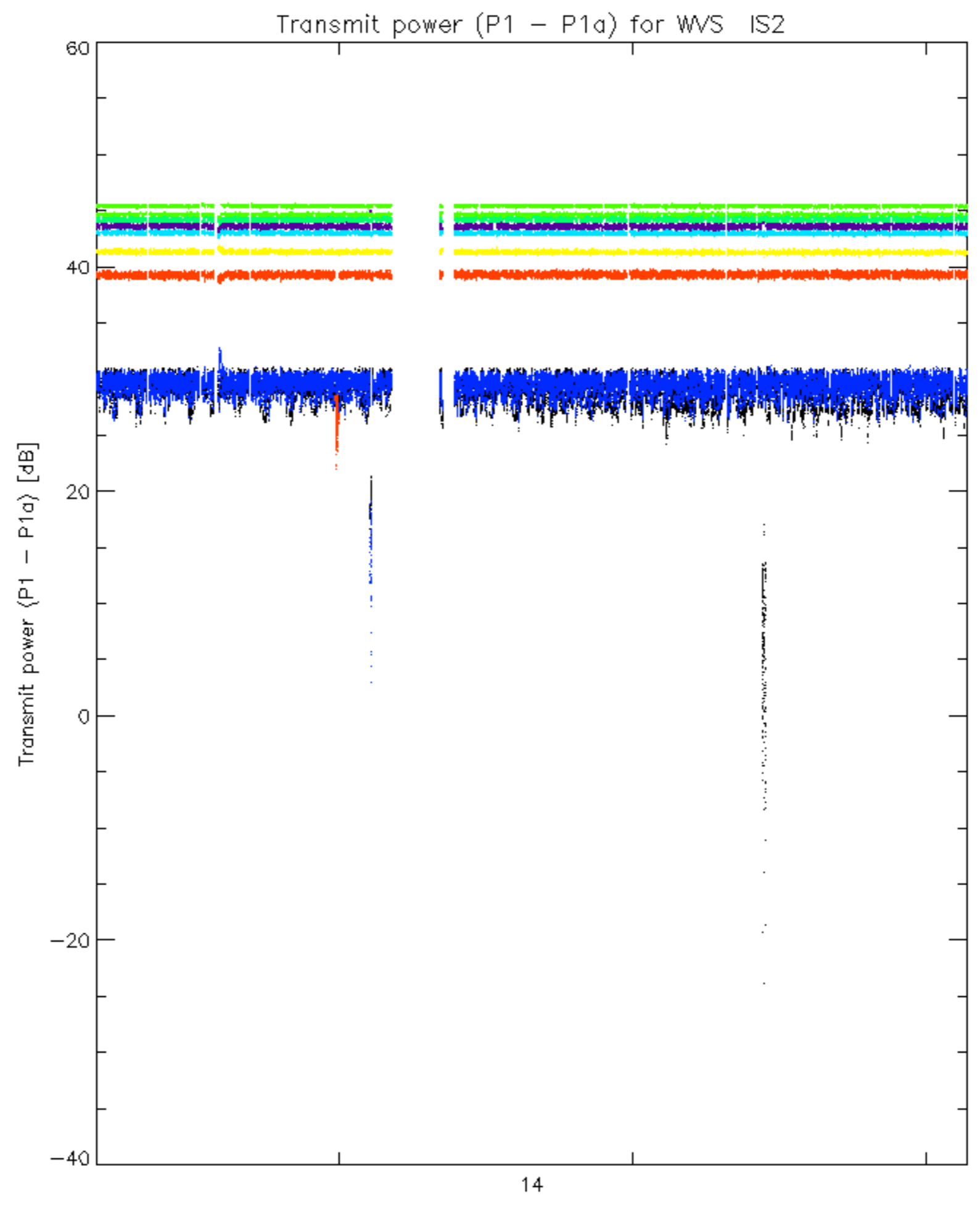




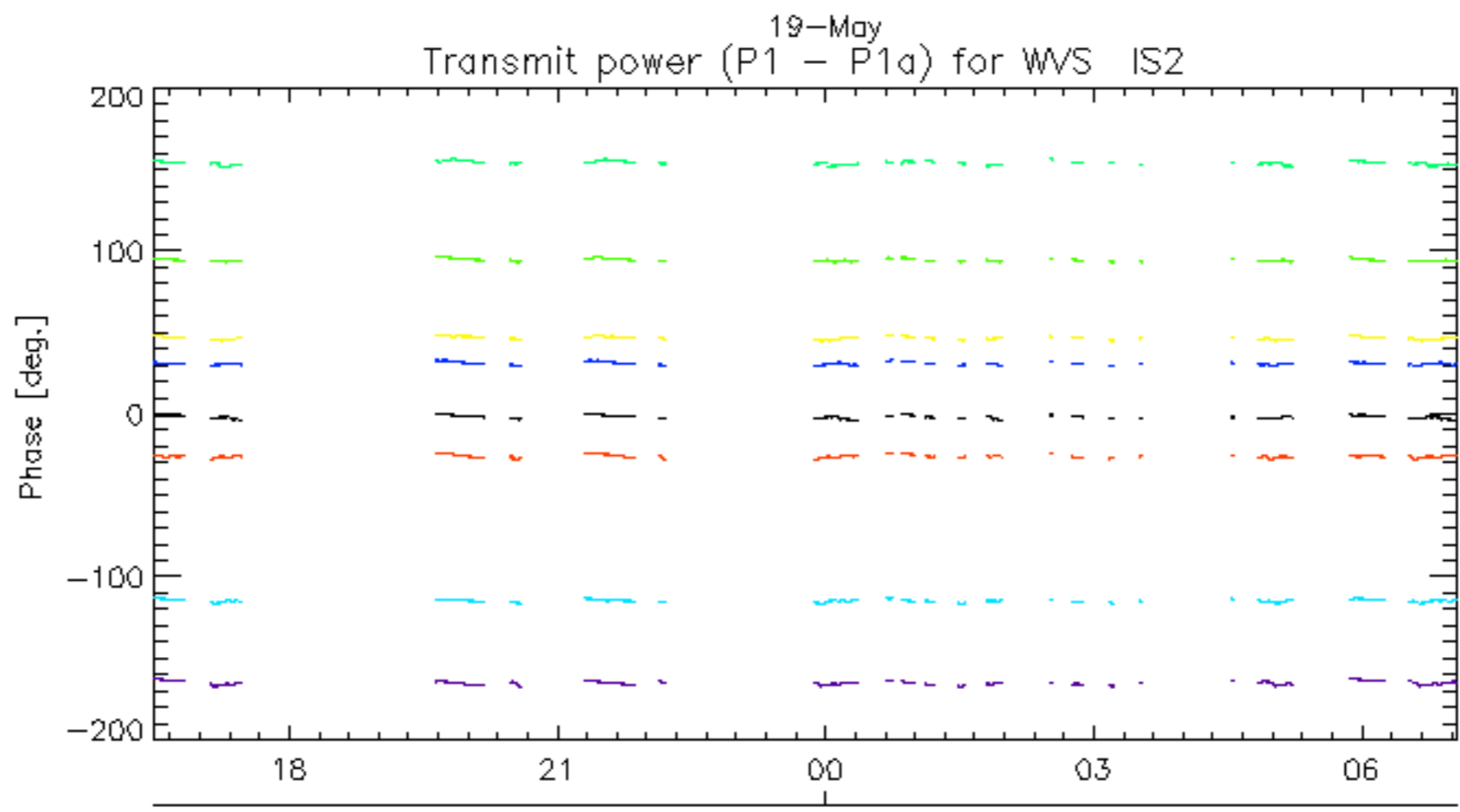
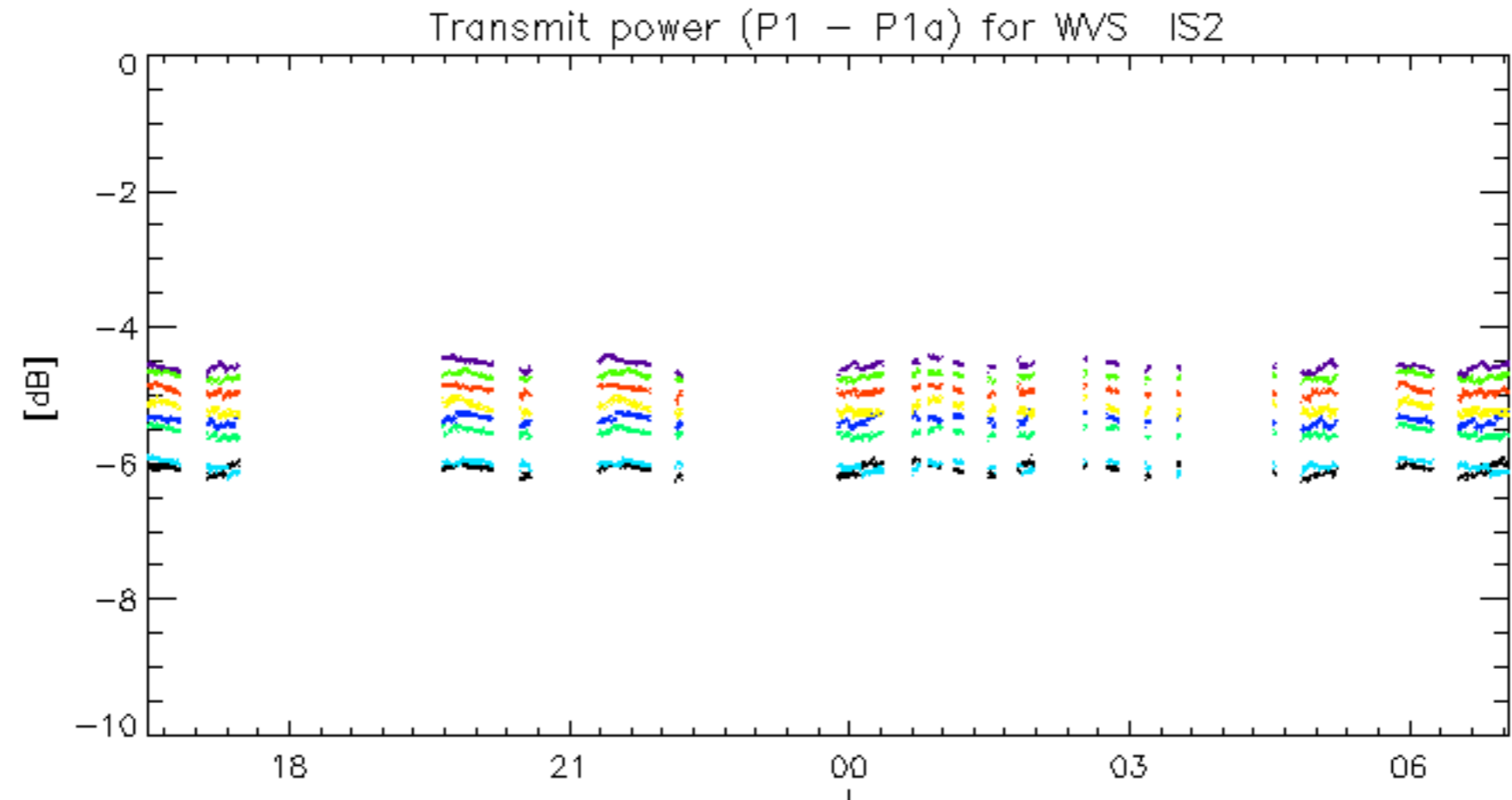
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



19-May
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



rows: **3** **7** **11** **15** **19** **22** **26** **30**

No unavailabilities during the reported period.